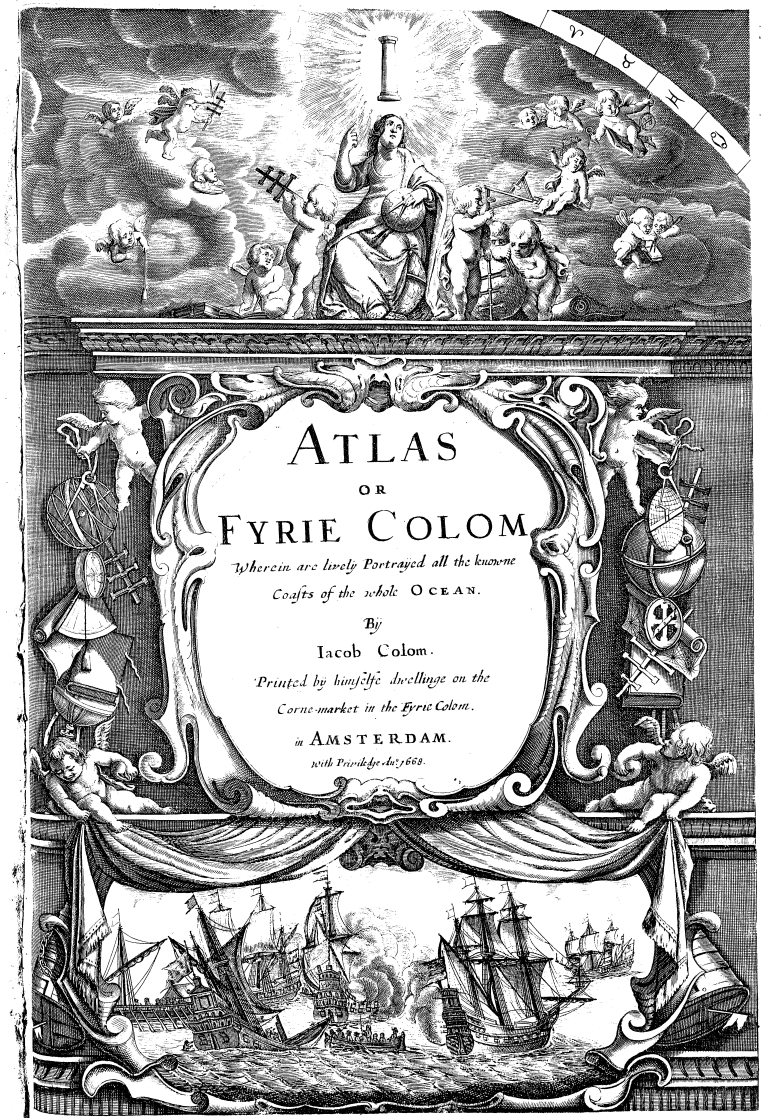
ATLAS
OR
FYRIE COLOM
Wherein are lively Portrayed all the knowne
Coasts of the whole OCEAN.
By
Iacob Colom.
Printed by himselfe dwellinge on the
Corne-market in the Fyrie Colom.
in AMSTERDAM.
with Priviledge Anno 1669.

173-8916

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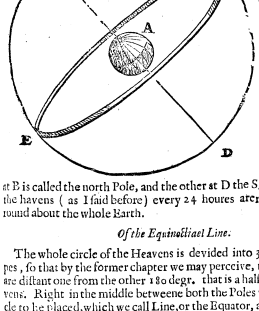
Of the two poles of World.

THe Earth with the waters doe make both together a perfect and just round Globe, which al the Mathematicans by good & infallible reasons doe confirme, as also by experince is found so to be. This Globe, the Eternall and omnipotent God hath firmely placed in the middle of the World, as the Center or middle point there of and hath placed the havens as a hallow Globe, with such an unmeasurable wyndes round about the same, that the distance thereof is equally set, and seaparated from the earth in all places, like unto the compasse of a circle, which is equally drawne and separated from the middle point thereof: and hath so ordained, that every 24 hours it is carried about the World: by which daylie motion, it drawcth with it all the heavenly lights, as the Sunne, Moon, and all the Starres, which also by that means in 24 houres are carried rounde about the whole World, as is dayly seene. The moving or stirring of the heavens is brought about upon two sure points, that stand directly one against the other, in such manner, as if a bale should be turned round upon two pins, as upon an Axeltre. Suppose that you see a straight line, streaching out from one of the aforesaid point of the heavens to the other, like unto an Axeltre of the World, that passed right through the center, that is through the middle of the earth and two points aforesaid, the Pooles or Axeltre points of the World, the one named the south Pole: Now that this may be better understood, I will manifest it by this figure.



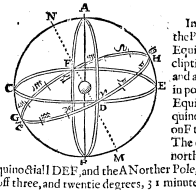
This figure A sheweth the Globe of the earth which unmove able standeth in the midle of the heavens, which hereby circle of B C D E is figured out. The line that reached from B to D going through the Earth signifieth the Axeltre of the World, & the point from B to D is the Pole or Axeltrees point, where of the one at B is called the north Pole, and the other at D the S. Pole, upon which the havens (as I said before) every 24 houres are moved and borne round about the whole Earth.

Of the Equinoctiael Line.

The whole circle of the Heavens is devided into 360 degr. or steppes, so that by the former chapter we may perceive, that the two Poles are distant one from the other 180 degr. that is a half circle of the heavens. Right in the middle betweene both the Poles we suppose a circle to be placed, which we call Line, or the Equator, and is so called because that when so ever the Sun cometh to his circle the day and night are of one length through out all the World. This circle is in all places equall distant from both the Poles of the World, to wit, 90 degrees: and devided the heavens into two equall parts, whereof the one reached northward, and is called the north part, the other southward, and is called the south part, as is plainly see in the former figure: where you see the south part, as is plainly seene in the former figure: where you see the chindle, E C is the Equinoctiall line, standing both of one length from the Poles E D, deviding the Heavens into two equall parts, as the north parth E B C, and the S. Part E D C.

Of the Ecliptica line or Sunne-way.

The Line Ecliptica lieth thwart over against the Equinoctiall deviding the same upon two points, right over against each-other, in two even a like parts, and is also devided through the forefaid 2 a like parts, the one lieth betwixt the Equinoctiall and the norther Pole, the other betwixt the Equinoctiall and the souther Pole, the most part is drawing off on both sides of the Equinoctiall to both Poles in 23 degrees, 31 and an halfe minutes. The Ecliptica is devided in 12 parts, each of the same bidefribed with a particular marke. The Sunne goeth along this Circle (without eternal turning out) and runneth through the same once every yeare with her owne native running, and so as the Poles of the World doe stand all over even farre of the Equinoctiall, also hath this Ecliptica his two Poles al over even far or distant from the same.



Explication.

In these figure are (as before) A B the Poles of the World, C D E F the Equinoctial, G D H E the line Ecliptica, dividing the Equinoctiall, and also him selfe, in 2 a like parts, in points D and F, which are called Equinoctials, the one on D the Equinoctium of the Spring, the other on F the Equinoctium of the harvest The one halfe part D H F (being the norther part) lieth betwixt the Equinoctiall D E F, and the A Norther Pole, upon the most on E H, turning off three, and twentie degrees, 31 minutes and an halfe, the other halfe part F G D (the souther part) lieth betwixt the Equinoctial F C D, and the souther Pole B, as also upon the most part, like as C G, turning off 23 degrees, 31 miuutes, and an halfe. The north part is devided in six signes, which are called the northermost, beginning on D, with rising signes to the north, Aries, Taurus, Gemini, untill H, the point of the most drawing off. From thence with the down-going signes of the North, Cancer. Leo Virgo, untill the Equinoctiall Line in E. the Equinoctium of the harvest. The souther part is also devided in sixe signes, which are called the southermost, beginning on F, with the down going signes to the south, Libra, Scorpius, Sagitarius, untill G, the point of the most turning of to the south, from thence forth with the rising signes to the north, Capricornus Aquarius, Pisces till againe on the Equinoctiall Line, and the Equinoctium of the Spring D. The 3 first northermost signes runneth the Sunne through of the 21 of march, til the 21 of June, the other of the 21 June, til the 23 of Septemb. The first 3 southermost of the 23 Septemb. til the 23 of December, the other of the 23 of December, til againe to the 21 of March. The Poles of the Ecliptica are, & N. standing al over even farre from the Ecliptica G H, & so farre from the Poles of the Earth A & B, when the Ecliptica upon the most is drawing off from the Equinoctial Line on H E and C G, to witt, 23 deg. 31 min. and an halfe.

Of the Colures.

Colur iare 2 Circles, going Crosse-wise through both the Poles of the World, deviding each other in the Poles in 2, and together the whole Sphera Equinoctial, Sodiac, or Ecliptica, & al Paralelles in 4 a like parts, the one going through the points of the Equinoctes, called Colurus off the Equinoctes, the other through the points of the Solstities, the Colurus of the Solstities. The Sunne touching these Circles (through his yearly running in the Sodiac) devideth the yeare in four parts, to wit, Spring, Summer, Harvest, and Winter.

Explication.

In this former Figure is A F E D, the Colurus of the Equinoctes, going through D and F, points of the Equinoctes, in the beginning of Aries and Libra, and through the Poles A and B A C G B M E H, the Colurus of the Solstities, going through H & G, points of the Solstities, in the beginning of Cancri & Capricorni, where the Ecliptica is upon the most drawing off from the Equinoctiall line, through the Poles of the World, and Sodiax M and N, cutting one another through crosse-wise with right corners in the Poles A and B, and deviding the Sodiac or Ecliptica in 4 parts, as D H, H E, and G D, where of the Sunne in the first takes his course in the Spring, the Second in the Summer, the third in the Summer, the third in the harvest, and the fourth in the Winter.

These forefaid Circles of the Sphere, are al great Circles, that is upon the widest of the Sphere round about written, deviding the same alwaies in two a like parts. There follow further four little Circles, which doe devide the Sphere in unlike parts.

Of the Tropikes and Circles Arcticus and Antarcticus.

Tropici are two Circles, the one northward, and the other southward of the Equinoctiall, and even wide with the same, which through the turning round about of the Sphere, of the points of the Ecliptica, is described to be the wideſt distant from the Equinoctial the one to the nort called Tropicus Cancri, the other to the south, Tropicus Capricorni.

Circulus Arcticus, the norther Circle, and Circuls Antarcticus, the souther Circle, are (through the turning round about of the Sphere) described of the Poles of Ecliptica.

Explication.

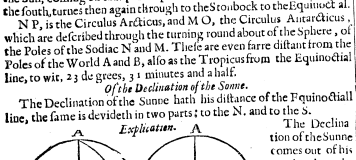
In this figure is the Tropicus Cancri or Sunne turning of the kreeft, which through the turning round about of the Sphere is described of the point of H, the beginning of Cancri is also called, because the Sunne, (comming on that point upon the wideſt from the Equinoctiall to the north) turneth then againe through the kreeft unto the Equinoctiall, G, K, is the Tropicus Capricorni, Sun turning

of the Stone-bock, is described through the turning round about of the Sphere of the point G, the beginning of Capricornus is so called, because the Sun, coming on that point upon the wideſt from the Equinoctiall to the ſouth, tureſ then again through to the Stonbock to the Equinoct al.

N P, is the Circulus Arcticus, and M O, the Circulus Antarcticus, which are described through the turning round about of the Sphere, of the Poles of the Sodiac N and M. Theſe are even farre diſtant from the Poles of the World A and B, alſo as the Tropicus from the Equinoctial line, to wit, 23 de gres, 31 minutes and a half.

Of the Declination of the Sonne.

The Declination of the Sunne hath his diſtance of the Equinoctiall line, the ſame is devideth in two parts; to the N. and to the S.



Explication.

The Declination of the Sunne comes out of his runningalong the Ecliptica line, after this manner: leave A his norther and B the ſouther Pole of the World. CPE the Equinoctiall, N H G the Eclipticaline. The Sun upon th 21 of March comming in the beginning Arietis on D, comes alſo in the Equinoctial line and hath therefore no Declination, northerly nor ſoutherly but going forth along the Ecliptica of D to H, and comming til on K, in the beginning of Cancri, that all be removed or declined from the Equinoctial line to the north, from I to K, 11 degrees, 30 min. Going ſo forth till on L, is upon the moſt declined from P to H, 23 degre. 31 min. and a half. From thence moſt declined from P to H, 23 degre. 31 min. and a half. From thence follow ing his courſe from H, to F, comes in the beginning of Libra again on the line without Declination, Going forth from F to G, til in M, the beginning of Sagitary, he ſtal then be removed or declined from the line F E, to the ſouth of L unto M, 20 degr. 13 minutes. Comming on G, he is from E to G declined to the ſouth, from thence he runnes then on D, a is from E to G in the Equinoctiall line, finiſhing the ſame running in a yeare.

For to finde the Declination of the Sunne upon every day of the yeare.

The Sunne-yeare (that is the time that the Sun goeth out a certaine point in the Ecliptica, and turneth againe in the ſame) is even with 365 dayes, but about 5 houres and 49 minutes more (that is ſomewhat leſſe then 6 houres) wherefore men muſt alwayes after 3 yeares unto the fourth, 4 times 6 hours (that is a day in February) bring thereunto, for to count the vear or revolution of the Sunne in even dayes, the ſame fourth yeare is therefore called the leape yeare. If you then will ſett the Declination of the Sunne by the Tables of the Day, then you muſt needs make 4 Tables a ſunder of 4 yeares following after another. The foreſaid difference, that foure revolutions of the Sunne doe not even agree with ſuch 4 yeares, brings in time ſo much difference in the Declination, that it is neceſſary at leaſt every 20 yeares to renew ſuch Tables. For to finde out of ſuch Tables upon every day of the yeare the Declination of the Sunne muſt needs two things be knowne, the firſt, in what yeare we are; or in the leape-yeare, or in the firſt, ſecond, or third thereafter. The ſecond, what Table men muſt uſe to ſuch a well known yeare.

For the firſt, devide the yeares of our Lord above 1600 through 4, if the deviding comes even out, without being to much, ſuch yeare is then a leap yeare of 366 dayes, but if out of the deviding remaines any number, the ſame will ſhew your deſire hou many years it is after the leape-yeare.

Explication.

I deſire to know what for a yeare the yeare, 1648 is, leaving the 1600 I devide theſe that are over 48, through 4, that comes even out without remaining (for 12 times 4 is 48) whereby I finde the yeare 1648 to be a leape-year.

II. Explication.

For to know what the yeare 1647. may be for a yeare, leaving the 1600, I devide the 47 through 4, and find that the there remaine 4 (for 11 times 4 is 44, the ſame from 47, remaines 3 out of which I finde the yeare 47. to be the third yeare after the leape yeare.

For to know the ſame without account, looke upon this following litle Table, the firſt Columne are leape-years, the ſecond third & fourth Columnes, are 3 yeares after the leape-yeares,

Leape yeares	*First*	*Second*	*Third.*
1648	1649	1650	1651
1652	1653	1654	1655
1656	1657	1658	1659

The ſecond, for to know what Table men muſt uſe, for every yeare, that finds above each of the following Tables noted.

I Explication.

In the ſecond yeare after the leape-yeare upon the 20 of May, I deſire to know the Declination of the Sunne, I ſeeke in the Tables, in the ſecond yeare of the moneth May and there under in the firſt Colomne, the figgers of the twentieſt day, finde there beſides in the ſecond Columne 20, 6, that is 20 degrees, 6 minutes the Declination of the Sunne. And becauſe that is betwixt the 20 of March and the 23 September, (that the Sunne is by north the Line) alſo is the Declination northerly.

II. Explication. Upon the 12 February of the Leape-yeare I deſire to know the Declination of the Sunne, and ſeeke therefore in the Table of the Leape-year the moneth of February & count in the firſt Columne the 12 day, finde there next unto 13 degr. 43 min. before the Declination of the Sunne upon the ſame day, becauſe that is betwixt the 23 of September, and the 20 or March, that the Sunne goeth by ſouth the line, the Declination is then ſoutherly.

Here follow the Tables of the Declination of the Sunne, juſtly accounted upon the length of the Earth, of the Meridiaen of Englands-end, the reaſon is becauſe they are moſt uſed about the length of the Nederlanders, mariners; as well in doing on of the Channell of the Sea, as a long the Coaſts of France, Portugall, and Spaine.

Table, of the Declination of the Sunne. New ſtyle. Vpon the firſt yeare, after the LEAP-YEARE.

Januarius.		Februari.		Martius.		Aprilis.		Majus.		Junius.		Julius.		Augustus.		Septemb.		October.		Novemb.		Decemb.	
da.	de. mi.	da.	de. mi.	da.	de. mi.	da.	de. mi.	da.	de. mi.	da.	de. mi.	da.	de. mi.	da.	de. mi.	da.	de. mi.	da.	de. mi.	da.	de. mi.	da.	de. mi.
1	23 5	1	17 8	1	7 13	1	4 55	1	15 22	1	22 13	1	21 9	1	17 57								
2	23 0	2	16 51	2	6 50	2	5 18	2	15 40	2	22 21	2	23 1	2	17 42								
3	22 54	3	16 33	3	6 27	3	5 41	3	15 57	3	22 28	3	23 0	3	17 26								
4	22 48	4	16 16	4	6 4	4	6 4	4	16 14	4	22 35	4	22 53	4	17 10								
5	22 41	5	15 57	5	5 41	5	6 27	5	16 31	5	22 42	5	22 49	5	16 54								
6	22 34	6	15 39	6	5 17	6	6 50	6	16 48	6	22 48	6	22 43	6	16 37								
7	22 27	7	15 20	7	4 53	7	7 12	7	17 5	7	22 54	7	22 37	7	16 20								
8	22 19	8	15 1	8	4 30	8	7 34	8	17 21	8	22 59	8	22 30	8	16 3								
9	22 10	9	14 42	9	4 7	9	7 57	9	17 37	9	23 4	9	22 23	9	15 46								
10	22 2	10	14 22	10	3 43	10	8 19	10	17 52	10	23 8	10	22 15	10	15 28								
11	21 52	11	14 3	11	3 19	11	8 41	11	18 8	11	23 13	11	22 7	11	15 10								
12	21 43	12	13 43	12	2 56	12	9 2	12	18 23	12	23 16	12	21 58	12	14 52								
13	21 33	13	13 23	13	2 32	13	9 24	13	18 37	13	23 20	13	21 50	13	14 33								
14	21 23	14	13 2	14	2 9	14	9 46	14	18 52	14	23 23	14	21 41	14	14 14								
15	21 13	15	12 42	15	1 45	15	10 7	15	19 6	15	23 25	15	21 33	15	13 55								
16	21 2	16	12 21	16	1 22	16	10 28	16	19 19	16	23 27	16	21 24	16	13 36								
17	20 50	17	12 0	17	0 58	17	10 49	17	19 33	17	23 29	17	21 15	17	13 17								
18	20 38	18	11 39	18	0 34	18	11 10	18	19 46	18	23 30	18	21 6	18	12 58								
19	20 26	19	11 18	19	0 10	19	11 31	19	19 59	19	23 31	19	20 57	19	12 38								
20	20 14	20	10 56	20	0 13	20	11 52	20	20 11	20	23 31	20	20 47	20	12 18								
21	20 1	21	10 34	21	0 37	21	12 13	21	20 23	21	23 31	21	20 37	21	11 58								
22	19 48	22	10 12	22	1 1	22	12 34	22	20 35	22	23 31	22	20 26	22	11 37								
23	19 35	23	9 50	23	1 25	23	12 55	23	20 47	23	23 30	23	20 15	23	11 17								
24	19 22	24	9 28	24	1 49	24	13 15	24	20 58	24	23 29	24	20 4	24	10 56								
25	19 8	25	9 5	25	1 12	25	13 36	25	21 8	25	23 28	25	19 53	25	10 36								
26	18 55	26	8 42	26	2 36	26	13 56	26	21 19	26	23 26	26	19 42	26	10 15								
27	18 41	27	8 19	27	3 0	27	14 16	27	21 29	27	23 23	27	19 30	27	9 53								
28	18 27	28	7 56	28	3 24	28	14 36	28	21 39	28	23 20	28	19 18	28	9 32								
29	18 13			29	3 48	29	14 56	29	21 48	29	23 17	29	19 6	29	9 11								
30	17 58			30	4 12	30	15 16	30	21 58	30	23 13	30	18 54	30	8 49								
31	17 42			31	4 36			31	22 7			31	18 42	31	8 27								

Eq.

Eq.

Januarius.

TABLE,
Of the Declination of the Sunne.
New Style,
Vpon the firſt yeare, after the LEAP-YEARE.

Januarius.		Februari.		Martius.		Aprilis.		Majus.		Junius.		Julius.		Augustus.		Septemb.		October.		Novemb.		Decemb.	
da.	de. mi.	da.	de. mi.	da.	de. mi.	da.	de. mi.	da.	de. mi.	da.	de. mi.	da.	de. mi.	da.	de. mi.	da.	de. mi.	da.	de. mi.	da.	de. mi.	da.	de. mi.
1	23 5	1	17 8	1	7 13	1	4 55	1	15 22	1	22 13	1	21 9	1	17 57								
2	23 0	2	16 51	2	6 50	2	5 18	2	15 40	2	22 21	2	23 1	2	17 42								
3	22 54	3	16 33	3	6 27	3	5 41	3	15 57	3	22 28	3	23 0	3	17 26								
4	22 48	4	16 16	4	6 4	4	6 4	4	16 14	4	22 35	4	22 53	4	17 10								
5	22 41	5	15 57	5	5 41	5	6 27	5	16 31	5	22 42	5	22 49	5	16 54								
6	22 34	6	15 39	6	5 17	6	6 50	6	16 48	6	22 48	6	22 43	6	16 37								
7	22 27	7	15 20	7	4 53	7	7 12	7	17 5	7	22 54	7	22 37	7	16 20								
8	22 19	8	15 1	8	4 30	8	7 34	8	17 21	8	22 59	8	22 30	8	16 3								
9	22 10	9	14 42	9	4 7	9	7 57	9	17 37	9	23 4	9	22 23	9	15 46								
10	22 2	10	14 22	10	3 43	10	8 19	10	17 52	10	23 8	10	22 15	10	15 28								
11	21 52	11	14 3	11	3 19	11	8 41	11	18 8	11	23 13	11	22 7	11	15 10								
12	21 43	12	13 43	12	2 56	12	9 2	12	18 23	12	23 16	12	21 58	12	14 52								
13	21 33	13	13 23	13	2 32	13	9 24	13	18 37	13	23 20	13	21 50	13	14 33								
14	21 23	14	13 2	14	2 9	14	9 46	14	18 52	14	23 23	14	21 41	14	14 14								
15	21 13	15	12 42	15	1 45	15	10 7	15	19 6	15	23 25	15	21 33	15	13 55								
16	21 2	16	12 21	16	1 22	16	10 28	16	19 19	16	23 27	16	21 24	16	13 36								
17	20 50	17	12 0	17	0 58	17	10 49	17	19 33	17	23 29	17	21 15	17	13 17								
18	20 38	18	11 39	18	0 34	18	11 10	18	19 46	18	23 30	18	21 6	18	12 58								
19	20 26	19	11 18	19	0 10	19	11 31	19	19 59	19	23 31	19	20 57	19	12 38								
20	20 14	20	10 56	20	0 13	20	11 52	20	20 11	20	23 31	20	20 47	20	12 18								
21	20 1	21	10 34	21	0 37	21	12 13	21	20 23	21	23 31	21	20 37	21	11 58								
22	19 48	22	10 12	22	1 1	22	12 34	22	20 35	22	23 31	22	20 26	22	11 37								
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24	19 22	24	9 28	24	1 49	24	13 15	24	20 58	24	23 29	24	20 4	24	10 56								
25	19 8	25	9 5	25	1 12	25	13 36	25	21 8	25	23 28	25	19 53	25	10 36								
26	18 55	26	8 42	26	2 36	26	13 56	26	21 19	26	23 26	26	19 42	26	10 15								
27	18 41	27	8 19	27	3 0	27	14 16	27	21 29	27	23 23	27	19 30	27	9 53								
28	18 27	28	7 56	28	3 24	28	14 36	28	21 39	28	23 20	28	19 18	28	9 32								
29	18 13			29	3 48	29	14 56	29	21 48	29	23 17	29	19 6	29	9 11								
30	17 58			30	4 12	30	15 16	30	21 58	30	23 13	30	18 54	30	8 49								
31	17 42			31	4 36			31	22 7			31	18 42	31	8 27								

Eq.

TABLE,
Of the Declination of the Sunne.
New Style,
Vpon the Second yeare, after the LEAP-YEARE.

Januarius.		Februari.		Martius.		Aprilis.		Majus.		Junius.		Julius.		Augustus.		Septemb.		October.		Novem.		Decemb.	
da.	de. mi.	da.	de. mi.	da.	de. mi.	da.	de. mi.	da.	de. mi.	da.	de. mi.	da.	de. mi.	da.	de. mi.	da.	de. mi.	da.	de. mi.	da.	de. mi.	da.	de. mi.
1	23 5	1	17 8	1	7 13	1	4 55	1	15 22	1	22 13	1	21 9	1	17 57	1	8 27	1	3 16	1	14 55	1	21 57
2	23 0	2	16 51	2	6 50	2	5 18	2	15 40	2	22 21	2	23 1	2	17 42	2	8 17	2	3 39	2	14 49	2	22 6
3	22 54	3	16 33	3	6 27	3	5 41	3	15 57	3	22 28	3	23 0	3	17 26	3	8 7	3	4 2	3	15 13	3	22 14
4	22 48	4	16 16	4	6 4	4	6 4	4	16 14	4	22 35	4	22 53	4	17 10	4	7 56	4	4 24	4	15 31	4	22 22
5	22 41	5	15 57	5	5 41	5	6 27	5	16 31	5	22 42	5	22 49	5	16 54	5	7 45	5	4 45	5	15 50	5	22 30
6	22 34	6	15 39	6	5 17	6	6 50	6	16 48	6	22 48	6	22 43	6	16 37	6	7 34	6	5 6	6	16 8	6	22 37
7	22 27	7	15 20	7	4 53	7	7 12	7	17 5	7	22 54	7	22 37	7	16 20	7	7 23	7	5 27	7	16 26	7	22 44
8	22 19	8	15 1	8	4 30	8	7 34	8	17 21	8	22 59	8	22 30	8	16 3	8	7 12	8	5 48	8	16 44	8	22 50
9	22 10	9	14 42	9	4 7	9	7 57	9	17 37	9	23 4	9	22 23	9	15 46	9	7 1	9	6 9	9	17 1	9	22 56
10	22 2	10	14 22	10	3 43	10	8 19	10	17 52	10	23 8	10	22 15	10	15 28	10	6 50	10	6 30	10	17 16	10	23 2
11	21 52	11	14 3	11	3 19	11	8 41	11	18 8	11	23 13	11	22 7	11	15 10	11	6 39	11	6 51	11	17 31	11	23 7
12	21 43	12	13 43	12	2 56	12	9 2	12	18 23	12	23 16	12	21 58	12	14 52	12	6 28	12	7 12	12	17 46	12	23 12
13	21 33	13	13 23	13	2 32	13	9 24	13	18 37	13	23 20	13	21 50	13	14 33	13	6 17	13	7 33	13	18 1	13	23 17
14	21 23	14	13 2	14	2 9	14	9 46	14	18 52	14	23 23	14	21 41	14	14 14	14	6 6	14	7 54	14	18 16	14	23 22
15	21 13	15	12 42	15	1 45	15	10 7	15	19 6	15	23 25	15	21 33	15	13 55	15	5 55	15	8 15	15	18 31	15	23 27
16	21 2	16	12 21	16	1 22	16	10 28	16	19 19	16	23 27	16	21 24	16	13 36	16	5 44	16	8 36	16	18 46	16	23 31
17	20 50	17	12 0	17	0 58	17	10 49	17	19 33	17	23 29	17	21 15	17	13 17	17	5 33	17	8 57	17	19 1	17	23 35
18	20 38	18	11 39	18	0 34	18	11 10	18	19 46	18	23 30	18	21 6	18	12 58	18	5 22	18	9 18	18	19 16	18	23 38
19	20 26	19	11 18	19	0 10	19	11 31	19	19 59	19	23 31	19	20 57	19	12 38	19	5 11	19	9 39	19	19 31	19	23 41
20	20 14	20	10 56	20	0 13	20	11 52	20	20 11	20	23 31	20	20 47	20	12 18	20	5 0	20	10 0	20	19 46	20	23 44
21	20 1	21	10 34	21	0 37	21	12 13	21	20 23	21	23 31	21	20 37	21	11 58	21	4 48	21	10 20	21	20 1	21	23 47
22	19 48	22	10 12	22	1 1	22	12 34	22	20 35	22	23 31	22	20 26	22	11 37	22	4 37	22	10 41	22	20 16	22	23 50
23	19 35	23	9 50	23	1 25	23	12 55	23	20 47	23	23 30	23	20 15	23	11 17	23	4 25	23	11 2	23	20 31	23	23 53
24	19 22	24	9 28	24	1 49	24	13 15	24	20 58	24	23 29	24	20 4	24	10 56	24	4 14	24	11 23	24	20 46	24	23 56
25	19 8	25	9 5	25	1 12	25	13 36	25	21 8	25	23 28	25	19 53	25	10 36	25	4 3	25	11 44	25	21 1	25	23 58
26	18 55	26	8 42	26	2 36	26	13 56	26	21 19	26	23 26	26	19 42	26	10 15	26	3 52	26	12 5	26	21 16	26	23 59
27	18 41	27	8 19	27	3 0	27	14 16	27	21 29	27	23 23	27	19 30	27	9 53	27	3 41	27	12 26	27	21 31	27	24 0
28	18 27	28	7 56	28	3 24	28	14 36	28	21 39	28	23 20	28	19 18	28	9 32	28	3 30	28	12 47	28	21 46	28	24 1
29	18 13			29	3 48	29	14 56	29	21 48	29	23 17	29	19 6	29	9 11	29	3 19	29	13 8	29	22 1	29	24 2
30	17 58			30	4 12	30	15 16	30	21 58	30	23 13	30	18 54	30	8 49	30	3 8	30	13 29	30	22 16	30	24 3
31	17 42			31	4 36			31	22 7			31	18 42	31	8 27			31	13 50			31	24 4

Eq.

Eq.

Januarius.

TABLE

Of the Declination of the Sunne.

New Style.

Vpon the first yeare, after the LEAP-YEARE.

Januarius.			Februari.			Martius.			Aprilis			Majus.			Junius.			Julius.			Augustus.			Septemb.			October.			Novemb.			Decemb.		
da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.	da.	de.	mi.
1	23	4	1	17	3	1	7	30	1	14	38	1	21	59	1	22	7	1	23	13	1	18	7	1	8	22	1	3	30	1	21	54	1	23	4
2	23	28	2	16	46	2	7	2	2	14	17	2	21	27	2	22	15	2	23	9	2	17	52	2	8	0	2	3	33	2	21	49	2	22	51
3	22	52	3	16	28	3	6	43	3	13	55	3	21	45	3	22	23	3	23	4	3	17	37	3	7	38	3	2	57	3	21	42	3	22	39
4	22	46	4	16	10	4	6	21	4	13	34	4	21	27	4	22	30	4	22	59	4	17	21	4	7	16	4	2	40	4	21	35	4	22	27
5	22	40	5	15	52	5	5	57	5	13	13	5	21	9	5	22	37	5	22	54	5	16	49	5	6	54	5	2	23	5	21	27	5	22	15
6	22	33	6	15	33	6	5	34	6	12	52	6	20	51	6	22	44	6	22	48	6	16	26	6	6	31	6	2	6	6	21	19	6	22	3
7	22	25	7	15	14	7	5	12	7	12	32	7	20	33	7	22	50	7	22	41	7	16	3	7	6	9	7	1	49	7	21	12	7	21	51
8	22	17	8	14	56	8	4	47	8	11	50	8	20	15	8	22	55	8	22	34	8	15	40	8	5	46	8	1	32	8	21	4	8	21	39
9	22	8	9	14	36	9	4	23	9	7	40	9	19	56	9	23	0	9	22	28	9	15	18	9	5	23	9	1	15	9	20	57	9	21	27
10	21	59	10	14	17	10	4	0	10	8	2	10	19	41	10	23	5	10	22	20	10	14	49	10	4	59	10	0	58	10	20	49	10	21	15
11	21	49	11	13	57	11	3	37	11	8	24	11	19	27	11	23	9	11	22	11	11	14	21	11	4	35	11	0	41	11	20	41	11	21	3
12	21	39	12	13	37	12	3	13	12	8	46	12	19	14	12	23	12	12	22	2	12	13	53	12	4	12	12	0	24	12	20	33	12	20	51
13	21	29	13	13	17	13	2	49	13	9	8	13	18	27	13	23	17	13	21	52	13	13	25	13	3	49	13	0	7	13	20	25	13	20	39
14	21	19	14	12	56	14	2	26	14	9	29	14	18	42	14	23	20	14	21	41	14	13	28	14	3	35	14	0	11	14	20	17	14	20	27
15	21	7	15	12	36	15	2	3	15	9	51	15	18	56	15	23	23	15	21	30	15	14	9	15	3	21	15	0	15	15	20	9	15	20	15
16	20	56	16	12	15	16	1	39	16	10	12	16	19	10	16	23	26	16	21	18	16	13	51	16	3	7	16	0	20	16	20	1	16	20	3
17	20	44	17	11	54	17	1	15	17	10	33	17	19	24	17	23	28	17	21	5	17	13	32	17	2	53	17	0	24	17	19	53	17	19	51
18	20	32	18	11	33	18	0	51	18	10	54	18	19	37	18	23	29	18	20	52	18	13	12	18	2	39	18	0	29	18	19	45	18	19	39
19	20	20	19	11	12	19	0	27	19	11	15	19	19	50	19	23	30	19	20	39	19	12	52	19	2	25	19	0	34	19	19	37	19	19	27
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21	19	53	21	10	28	20	23	40	21	11	56	21	20	15	21	23	29	21	20	13	21	12	13	21	1	57	21	0	45	21	19	21	21	19	3
22	19	40	22	10	7	21	23	16	22	12	16	22	20	27	22	23	27	22	20	0	22	11	53	22	1	43	22	0	50	22	19	13	22	18	51
23	19	26	23	9	45	22	22	51	23	12	35	23	20	39	23	23	25	23	19	46	23	11	32	23	1	29	23	0	54	23	19	4	23	18	39
24	19	11	24	9	22	23	22	25	24	12	53	24	20	50	24	23	20	24	19	32	24	11	12	24	1	15	24	0	57	24	18	55	24	18	27
25	18	56	25	9	0	24	22	0	25	13	10	25	21	1	25	23	13	25	19	18	25	10	51	25	1	0	25	1	0	25	18	46	25	18	15
26	18	41	26	8	37	25	21	36	26	13	27	26	21	12	26	23	7	26	19	4	26	10	30	26	0	46	26	1	3	26	18	37	26	18	3
27	18	25	27	8	15	26	21	12	27	13	44	27	21	22	27	23	0	27	18	50	27	10	9	27	0	32	27	1	6	27	18	28	27	17	51
28	18	8	28	7	52	27	21	48	28	14	0	28	21	31	28	22	52	28	18	36	28	9	48	28	0	18	28	1	9	28	18	19	28	17	39
29	17	53				28	21	53	29	14	17	29	21	39	29	22	44	29	18	22	29	9	27	29	0	4	29	1	12	29	18	10	29	17	27
30	17	37				29	21	57	30	14	34	30	21	45	30	22	36	30	18	8	30	9	5	30	0	0	30	1	15	30	18	1	30	17	15
31	17	21				30	21	59	31	14	51	31	21	50	31	22	27	31	17	53	31	8	43	31	0	4	31	1	18	31	17	52	31	17	3

Eq.

Eq.

Of the lenght and bread of the fixed Starres.

HE ſtarres of the eighteth heaven are called the fixed ſtarres, becauſe they are (not alike the Planetes, without moving) alwayes faſt and fixe in one faſhion & diſtance from each other, and together through it Primum Mobile are carried one with another round about, and are accounted after their length and broadneſſe, her length is a part of the Ecliptica, gathered betwixt two halfe Circles, going both out of the Poles of the Ecliptica, the one through the Equinoctium of the Spring or beginning Arietis, the other through the ſtarres ſelfe. Their broadneſſe is a Bow of ſuch an halfe circle, betwixt the Equinoctiall line and the ſtarre. The ſame is of two ſorts, northerly and fourtherly, the northerly ſtand northwards from the Ecliptica, and the fourtherly, fouthward from thence.

Explication.

Let CD be Cancer, the Ecliptica linie N the norther, M the fourther Poles of the ſame, F a certaine ſtarre. Let be drawn out of the forefaid Poles two halfe circles, the one NDM through the Equinoctium of the Spring on D. The other through the ſtarre F, cutting the Ecliptica in K, the part of the Ecliptica DK, is the length of ſuch an ſtarre, and the bow of a part of the ſame halfe Circles KE, his broadneſſe to the north, becauſe he ſtandeth by north the Ecliptica.

Of the eight Aſcention and declination of the fixid Starres.

The right Aſcention of the ſtarres is a part of the Equinoctials, ſtanging betwixt 2 halfe circles, going both out of the Poles of the World, the one through the Equinoctium of the Spring, the other through the ſtarres. Their declination, a bow of ſuch a halfe Circle betwixt the Equinoctiall, and the ſame ſtarres, which are alſo two ſeverall, northerly, which ſtands by north the Line, and fourtherly which ſtands by fouth.

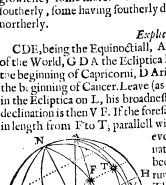
Explication.

In the former figure is CDE the Equinoctial line, A the norther, and B the fouther Pole of the World, F a certaine ſtarre, draw out of the foreſaid Poles two halfe circles, the one A D B through the Equinoctium or beginning of Arietes, the other through F the ſtarre, the ſame cuts the Equinoctial in N. The part of the Equinoctials L D, is the right Aſcenſion of ſuch a ſtarre, and the bow of the part of the ſame Circles, LE, his declination to the north, or O I, of the ſtarre I, to the ſouth.

Of the chaunging from the declination of the fixed Starres.

SO as the Steerned heaven, upon over eye-ſight every, 24 houres is turned round, through it primum mobile, upon the Aſſe points of the Poles of the World from the eaſt to the weſt, alſo is the ſame in 25400 years once turned round upon the Poles of the Ecliptica, to the contrary from the weſt to the eaſt, like as the Sunne once yearly. Through which doth ſich nige the length of the ſtarres every 100 years 1 degrees, 25 minutes, of every 20 yeares 17 minutes, but their broadneſſe, that is the diſtance of the Ecliptica, is unchange-able, alwayes the ſame. Through the forefaid changing of the length in time alſo the declination, of the one more and ſooner then from the other. The northſtarre, and ſome other more, doe change every three yeares about one minute in declination, and ſome can not change in 50 yeares one minute. Some growleſſe, ſome more. Some having northerly declination, become fourtherly, ſome having fourtherly declination, become to the contrary northerly.

Explication.

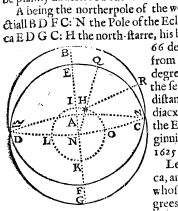


CDE, being the Equinoctiall, A the norther and B the fourther Pole of the World, G D A the Ecliptica line, N M the Poles of the ſame, G the beginning of Capricorni, D Arietis, and H the end of Gemini, or the b. ginning of Cancer. Leave (as before) the ſtarre on F, his length is in the Ecliptica on L, his broadneſſe there by north L E, his northerly declination is then V F. If the forefaid ſtarre after ſome yeares, runneth in length from P to T, parallell with D H is broadnes remaines K T, even on the former F L, but his declination IT, is more then V E the firſt, becauſe the parallell with D H is more turned from the Equinoctiall line. The ſtarre on O, whole length his in the Ecliptica on Q, and his broadnes Q Q, hath fourtherly Declination P O, but running in length from O in R, parallell with Q X, broadnes is X R, even on Q Q, but his fourtherly declination RS, is leſſer then O P, becauſe that he parallell with G D, is come nearer to the Equinoctiall. If the ſame Star comes in length to runne unto Y, his Declination ſhall be Y Z, by N the Line. That is from

from the firſt 6 ſignes, Capricornus, Acquarius, Piſces, Aries, Taurus, Gemini. Upon the ſame manner to the contrary in the other 6 ſignes, Cancer, Leo, Virgo, Libra. Scorpius, and Sagitarius, as followeth. In the ſame figure being H the beginning Caneri, D Libra, and G the end Sagitary. If a ſtarre on T, having northerly Declination TI, runneth in length till in E, his declination EV, is leſſer then TI, becauſe he is come nearer to the Equinoctiall, but if the ſame in length over runneth til on B, his declination which was firſt N ſhal then be fourtherly from B in D.

Through the forefaid moving of the eighteth haven changeth alſo the declination of the northſtarre, which grouwes now every yeare more, that is, he turneth how longer how more from the Equinoctiall, and comes nearer to the Pole, which ſhall endure unto the yeare of our Lord 2091. then ſhal he be upon the neareſt unto the Pole, and no more then 26 minut. and an halfe diſtant from thence, and after that time turne by little and little againe from thence ſo that he after 1270 yeares ſhall ſtand of from the Pole 47 degrees, 56 minutes. How this can be, may be plainly underſtood out of this following Explication.

A being the northerne of the world, in the midſt of the Equinoctiall B D F C: N the Pole of the Ecliptica, in the midſt of the Ecliptica B D F C: N the Pole of the Ecliptica, his broadneſſe of the Ecliptica is Q H, ca E D G C: H the north-ſtarre, his broadneſſe of the Ecliptica is Q H,



66 degrees, 2 minutes, and his diſtance from the Pole of the Sodiacx N H, 23 degrees, 58 minutes, theſe be alwayes the ſelfe ſame, like as the broadneſſe and diſtance of all the fixed ſtarres of the Sodiacx-Pole as is faid before, his length of the Equinoctium of the Spring, or beginning Arietis was before the yeare 1625 CQ 83 degrees 24 minutes.

Let out of N, the Pole of the Ecliptica, an Circle be written, as I L K O H, whoſe halfe Diametre be N H, 23 degrees, 58 minutes, even on the diſtance of the north-ſtarre of the Sodiacx-pole, there within is beſieged the north pole of the World A, as being ſomewhat leſſe diſtant from the Sodiacx pole then the north ſtarre upon ſuch an Circle doth the norther-ſtarre his turning round about the Sodiacx-pole, ſo as al fixed ſtarres, 25400 yeares) his diſtance from the Pole of the World is before the yeare 1645 A H, 2 degrees, 35 minut. and ſhal be come in the yeare of our Lord 2091 through the forefaid moving, from H in I, upon the neareſt on A, the Pole of the World, and ſtand from thence no more then 27 minut. and an half. Going forth from I, alongſt L, till in K, he ſhal be diſtant from the pole of the world A K, 47 degr. 56 minutes.

Becauſe the ſtarres, doe not alwayes hold one declination, have we, at ſervice of all mariners (or Sea-fearing men) preapared theſe two following Tables: The firſt ſheweth her declination for the yeare 1645 the ſecond for the yeare 1655. Beſides the declination, there is put unto it the Complement of the declination, that is, how farre the ſame ſtands from the Pole.

Table off the declination off the principall fixed ſtarres, together her diſtance from the Pole, upon the years of 1645 and 1655.

Theſe following (ſtanding all by fouth the Equinoctiall Line) have fourtherly Declination.

From the north-ſtarre Alrucuba, beginneth the northerly Declination.

	Anno 1645.				Anno 1655.			
	Souther-ly decli-nation.		The diſt. from the ſouthern Pole.		Souther-ly decli-nation.		The diſt. from the ſouthern Pole.	
	gr.	mi.	gr.	mi.	gr.	mi.	gr.	mi.
The northermoſt in the whales tayle.	10	46	79	14	10	43	79	17
The fouthermoſt in the whales tayle.	19	57	70	3	19	54	70	6
Regel, the left foot of Orion.	8	39	81	21	8	38	81	22
The firſt of the three in the Girdle of Orion, or the 3 Kings.	0	46	89	24	0	36	89	24
The ſecond in the girdle, or 3 Kings.	1	27	88	33	1	27	88	33
The third.	2	10	87	50	2	10	87	50
The great Dogge, Syrius.	16	13	73	47	16	13	73	47
The hart of the waterſnake.	7	8	82	52	7	10	82	50
Spica Virginis, or the corneare.	9	15	80	45	9	18	80	42
The ſouth Balance.	14	30	75	30	14	33	75	27
The north Balance.	8	1	81	59	8	4	81	56
The northermoſt and firſt is the left-hand of the ſnakebearer Ophiuchus.	2	46	87	14	2	48	88	12
The left knee of Ophiuchus.	9	46	80	14	9	48	80	12
The right knee of the ſnakeberer.	15	12	74	48	15	13	74	47
Antares the hart of the Scorpion.	25	33	74	27	25	35	74	25
The northermoſt of the two in the horſes of Capricorne.	13	33	76	27	13	32	76	28
The fouthermoſt of the two	15	50	74	10	15	49	74	11
The former or moſt weſterly of the 2 ſtarres in the tayle of Capricorne.	18	10	71	50	18	8	71	52
The ſecond moſt eaſterly.	17	39	72	21	17	37	72	23
The left ſhoulder of Aquarius.	7	4	82	56	7	2	82	58
The right ſhoulder of Aquarius.	2	0	88	0	1	57	88	3
The uttermoſt of Aquarius named Famahand.	31	25	58	35	31	22	58	38

	Anno 1645.				Anno 1655.			
	Northerly Declination.		Diſtance from the Northern Pole.		Northerly Declination.		Diſtance from the Northern Pool.	
	gr.	mi.	gr.	mi.	gr.	mi.	gr.	mi.
Alrucuba the north ſtarre.	87	25	2	35	87	28	2	32
The middlemoſt or brighteſt of the Watchmen.	77	40	14	20	75	37	14	23
The breſt of Caſſiopea.	54	37	35	23	54	40	35	20
The hippe of Caſſiopeia.	54	49	31	11	54	52	31	8
The knee of Caſſiopeia.	58	22	31	38	58	25	31	35
The brighteſt in the cleare of Caſſio.	57	13	32	47	57	17	32	43
The heed of Andromeda.	27	9	62	51	27	12	62	48
The Girdle of Andromeda.	33	47	56	13	33	50	56	10
The moſt fourtherly foot of Androm.	49	52	40	8	49	54	40	6
The brighteſt in the head of the Ram.	21	46	68	14	21	45	68	15
The brighteſt in the mouth of the whale.	2	40	87	20	2	42	87	18
The brighteſt in the head of Meduſa.	39	33	50	27	39	35	50	25
The brighteſt in the ſide of Perſeus.	48	31	41	29	48	33	41	27
Aldebaran the ſouth eye of the Bul.	15	48	74	12	15	50	74	10
The north-horn of the Bull.	28	16	61	44	28	17	61	43
The ſouth-horne of the Bull.	20	54	69	6	20	54	69	6
The left ſhoulder off the Gyant Orion.	5	59	84	1	6	0	84	0
The right ſhoulder of Orion.	7	18	82	42	7	18	82	42
Hircus or Capella in the left ſhoulder of the carter Erichtonius.	45	35	44	25	45	36	44	26
The right ſhoulder of Erichtonius.	44	52	45	8	44	52	45	8
The brigheſt in the foot of the twinnes.	16	40	73	20	16	40	73	20
The head off the northermoſt twinne Caſtor.	32	36	57	24	32	35	57	25
The head off the southermoſt twinne Pallux.	28	50	61	10	28	49	61	11
Procyon the little Dogge.	6	7	83	53	6	6	83	54
Regulus, Baſiliſcus the hart of the Lion	13	40	76	20	13	37	76	23
The middlemoſt and cleareſt in the nek of the Lion,	21	37	68	23	21	34	68	26
The brighteſt in the back of the Lyon.	22	28	67	32	22	24	67	36
The tayle of the Lyon.	16	33	73	47	16	30	73	50
The northermoſt hinderwhele off the great Wagon.	63	40	26	20	63	37	26	23
The fouthermoſt hinderwheele off the great Wagon.	58	17	31	43	58	14	31	46
The northermoſt forewhele of the wagon.	59	0	31	0	58	57	31	3
The fouther forewheele of the Wagon.	55	41	34	19	55	37	34	22
The neereſt Horſe to the Wagon.	57	56	32	4	57	53	32	7
The middlemoſt Horſe.	50	49	33	11	50	46	33	14
The fouthermoſt Horſe.	51	8	38	52	51	1	38	55
Vindemiatrix the northwing of Virgo.	12	54	77	6	12	51	77	9
The Girdle of the Virgin.	5	22	84	38	5	19	84	41
The left ſhoulder of Bootes.	39	50	50	10	39	47	50	13
The bright ſtar betwixt the highes off Bootes Arcturus.	21	5	68	55	21	2	68	58
The brighteſt in the north Crowne.	27	57	62	3	27	57	62	5
The brighteſt in the neck of the Serpent Opiuchus.	7	37	82	23	7	33	82	25
The head of Hercules.	14	51	75	9	14	50	75	10
The head of the Serpentbearer.	12	52	77	8	12	53	77	9
The brighteſt in the Dragous head.	51	37	38	23	51	37	38	23
Lyra.	38	30	51	30	38	30	51	30
The tayle of the Eagle.	8	24	76	36	8	23	76	35
Vultur the middlemoſt and brighteſt in the Eagle.	8	0	82	0	8	1	81	59
The breſt of the Swanne.	39	9	50	51	39	11	50	49
The taile of the Swanne.	44	3	45	57	44	5	45	55
The Girdle of Cephus.	69	1	20	59	69	3	20	57
That in the mouth of Pegaſus.	8	16	81	44	8	18	81	42
Sheat the brighteſt in the legge of Pegaſus	26	10	73	50	26	13	73	47
Marcab the foot of Pegaſus.	13	19	76	41	13	21	76	39
The uttermoſt in the wing of Pegaſus.	13	13	76	47	13	16	76	44

By this table you may finde the declination of any of these Starres, in the yeares betweene provided that you proportion the difference off the declination to the difference of the time.

I. Example.

I desire to know the Declination of the southermost fore wheele of the Wagon for the year 1650. I find in the Table of the yeare 1645. 55 degrees, 41 minutes, and for the yeare 1655. 55 degrees, 37 minutes, the number proportioned as the yeares, I find 55 degrees, 41 minutes, lessening declinated.

I I. Example.

I desire to know the declination of *Aldeboran*, the eye of the Bull in the yeare 1650. I find in the table for the yeare 1645. 15 degrees, 48 minutes, for the yeare 1655. 15 deg. 50 min, the number proportioned as the yeares, I finde 15 degr. 49 minut. increasing declination.

Instruction how men shall easily know the fixed starres, upon what time every one of the same comes on the south.

HOw neccessary and profitable it is for a Sea-faring Man to have knowledge of the fixed starres, and how to use the same, especially in strange voyages and farre Sailings, that is well knowne by all expert and understanding Pilote; therefore, because we have in the former head-point described the declination of the fixed starres and their distance from the Pole, we will shew here a way and certaine Instruction for to know the same easily, and that it at time perfectly may beknown when each of the same comes in the south or upon the highest, and when they are fit for to be used. First, muft be knowne, that the Sunne-way in the haven ftands unmoveable with the fixed ftarres, which with the same once every day turnes round, from the east to the west, without changing; but that the Sunne doth against these forefaid yearly turning, from west to the east, through which he, in his dayly going round, doth decline so much, that he in a yeare goeth once lesse round then the fixed ftarres, and that the fixed ftarres in a yeare doe turne once more then the Sunne, so that every day the same doe come 4 minutes sooner on the south, that is every weeke about an halfe houre, and every moneth 2 houres. For to underftand this more plainly, we will declare that with an Example, with the ftarre which is called Syrius, or the great Dogge, which followeth always a little after the Gyant Orion, and his Girdle, which men doe call the three Kings: shewth a litle above the great Dogge, it is the greateft and cleareft of al the fixed ftarres, and alfo moft knowne of al Sea-fearing men, his declination is by fouth the Line 16 degrees and 13 minutes, the same comes in the south the 24 of January, atten a clocke in the evening, The 23 of February at 8 a clocke in the evening. The 28 of March at 6 a clocke in the evening, The 30 of April at 4 a clock in the evening. The 30 of May, in the after-noone at 2 a clocke. The 28 of June at noone about 12 a clocke, together with the Sunne. The 28 of July, in the fore-noone at 10 a clocke. The 29 of Auguft, in the fore-noone at 8 a clocke. The firft of October, in the morning at 6 a clocke. The 20 of November in the morning at 4 a clocke. The 1 of December at 2 a clock in the morning. The 28 of December, in the night, at 12 a clocke.

Out of which every one can easily reckon upon what houre and time thefe foresaid ftarre upon all other dayes of the yeares comes in the south, as well by day, when a men can not see him, as by night, when a men can see him. If you alfo desire to know that of all other fixed ftarres upon al the dayes of the yeare: then you muft firft seeke out of that, which is before sayd, upon what houre of your minded day the great Dogge comes on the south, & afterwards out of the following defcription of the ftarres how many times such an ftarre, as you desire comes after or before the great Dogge on the south, then you shall finde the just and perfect time which you desire.

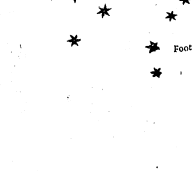
The counterfaitting of the fixed ftarres, and upon what time every one of the same comes on the south.

The Twinnes.

THe figure Gemini (in English the Twinnes) is situated direct north, from the great Dogge, or Canis major in the same manner as it is here deferibed, the north head there of commeth 40 minutes, after the Dogge, into the south, his declination is two and thirtie degrees, and 37 minutes from the line northward.

The south and lowest head thereof commeth 54 minutes after the great Dogge into the south; and hath his declination towards the north, 28 degrees, 51 minutes.

The cleareft in the foot commeth 2 quarter of an houre before the great Dogge into the south his, declination is 16 degrees, and 30 minutes towards the north.

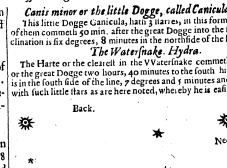


Canis minor or the little Dogge, called Canicula, Procion.

This little Dogge Canicula, hath 3 ftarres, in this forme, the cleareft of them commeth 40 min. after the great Dogge into the south; his declination is fix degrees, 8 minutes in the northside of the line.

The Waterfnake. Hydra.

The Harte or the cleareft in the Waterfnake commeth after Syrius or the great Dogge two hours, 40 minutes to the south his declination is in the south side of the line, 7 degrees and 5 minutes and shew it selfe with fuch little ftars as are here noted, whereby he is easily knowne.



The Lyon.

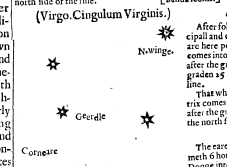
The Lyon hath foure beautifull ftars, fit for use, and sheweth it felf with other, as is here set forth the first and foremoft of them is called Regulus or Baßiliscus otherwise the hart of the lion which cometh 3 houres & 30 min. after the great Dogge into the south, his declination

Neck.

13 gradem40 minut. in the north side of the line, the second called the necke of the lion 3 hours 30 minut. after the great Dogge into the south, and hath his declination of the line 21 gr. 4 min. the back of the lyon comes into the south, 74 min. before the great Dogge: his declination is in the north side of the line 18 grad. 33 min. the taile of the lyon comes 7 houres after the great Dogge into the south; his declination 16 graden 30 minutes, in the north side of the line.

[Benda leonis.]

(Virgo. Cingulum Virginis.)



Virgo or the maide.

After followeth Virgo, whereof the principall and cleareft shews this shappe, as they here are portrayed; the Girdle of the Virgin comes into the south, fixe houres 12 minutes after the great Dogge, here declination is 5 graden 25 minutes in the north side of the line.

That which is an wing cal'ed Vindemiatrix comes into the south, 9 hours, 16 minutes after the great Dogge, here declination is in the north side of the line 13 degr. 57 min.

Spica Virginis.

The eare of corne or Spica Virginis commeth 6 houres and 30 minut. after the great Dogge into the south her declination is 9 gr. 12 minutes in the south side of the line.

Bootes the Crowne. Arfturus.

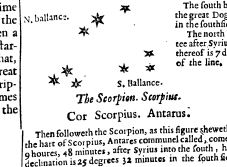
Seven houres 30 minutes after the ftar called Syrius, the cleareft Star of bootes comes into the south and ftandeth between his thighes, in this forme, with fome other ftars, and is called Arfturus, his declination is in the north side of the line 21 degrees 8 minutes.

The northen Crowne. Corona. Ariadne.

After bootes followeth the north Crowne, bearing fashon of a circle, as followeth, of the Mariners, it is called the Hofpital, and when in cleare whether, they behold fome final ftars in it, they call them the sick; the greateft and cleareft of them comes eight houres, 48 minutes after the great Dogge into the south, his declination is in the northside of the line 27 degrees, 19 minutes,

The Weights Libra.

The Ballance or Waights, follow the signe of Virgo, as followeth.



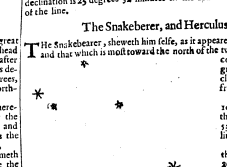
The south ballance comes eight houres after the great Dogge to the south, its declination is in the southside of the line 14 degr. 28 minutes.

The north ballance comes 8 houres, 48 minutes after Syrius to the south, the declination thereof is 17 degrees, 58 minutes in the southside of the line.

The Scorpion. Scorpius.

Cor Scorpius. Antarus.

Then followeth the Scorpion, as this figure sheweth, the hart of Scorpius, Antares communel called, comes 9 houres, 48 minutes, after Syrius into the south, his declination is 25 degrees 32 minutes in the south side of the line.



The Snakeberer, and Herculus. Serpentarius.

THe Snakebearer, sheweth him selfe, as it appeareth in this figure, the formoft ftarre, and that which is moft toward the north of the two, which ftande on the left hand, comes 9 houres 15 minutes after the great Dogge into the south, his declination is 2 degrees 44 minut. south from the line.

The head of the Snakebearer comes 10 houres 40 minutes after Syrius to the south his declination 12 degrees, 53 minutes in the northside of the line.

The head of Hercules ftandeth by the head of Serpentarius, and comes 20 minutes before it into the south, and hath his declination northward 24 degrees, 51 minutes.

Lyra. Vultur Cadens.

Then followes Lyra, in this manner, the greateft with two little ones by it, which the mariners call the three caßles the highreft and cleareft ftarre, comes 11 houres, 55 minutes after the great Dogge into the south, the declination thereof is 38 degrees, 28 minutes in the north side of the line.

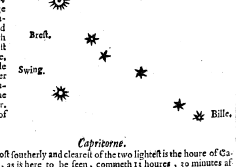
The Eagle. Vultur volans Aquila Sygnus.

Sheweth himself as this figure declareth, the cleareft of these; that is to say the middelmoft of the three, comes 13 houres after the great Dogge; or 11 houres, into the south the declination thereof is 7 degrees, 17 minutes, in the north side of the line.

The Swanne.

The Swanne is shaped thus: the ftarre that is the moft north in the breft, commeth 13 houres, 40 minutes after or of 10 houres, 20 minutes into the south before the great Dogge, and hath his declination in the north side of the line 39 degrees, 7 minutes. That which ftands moft to the south of the two in the breft, is a new ftarre, and hath shewed it self first in the year 1600 the north wing comes 10 houres, 4 minutes after the Dogge into the south, the northern declination thereof is 44 degrees, 13 minutes.

Cauda Sygni.



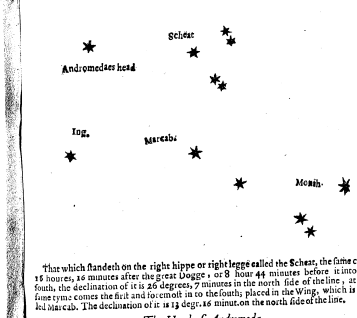
The S. weing comes 14 houres after the great Dogge into the south, the declination off it is 32 graden and thirty minutes in the north side of the line. The lightest and cleareft of the Swanne, which is placed in the tayle of it, comes 14 houres, after the great Dogge, or 10 houres before into the south, the declination of it is 44 degr. 3 minute in the north side of the line.

Capricorne.

The most southerly and cleareft of the two lightest is the houre of Capricorne, as is here to be seen, commeth 13 houres, 30 minutes after the great Dogge into the south.

The Flying Horse Pegasus.

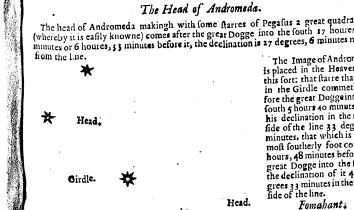
The Flying Horse Pegasus, we may see in the heavens in this proportion, the ftarre in the mouth comes 14 houres 56 minutes after, or 9 houres, 4 minutes before the great Dogge into the south, his declination is 8 degrees 7 minutes.



That which ftandeth on the right hippe or right legge called the Schear, the same coms 16 houres, 16 minutes after the great Dogge; or 8 hour 44 minutes before it into the south, the declination of it is 26 degrees, 7 minutes in the north side of the line; at the same tyme comes the first and foremoft in to the south, placed in the Wing, which is called Marcab. The declination of it is 13 degr. 16 minut. on the north side of the line.

The Head of Andromeda.

The head of Andromeda makingh with some ftarres of Pegasus a great quadrangle (wherby it is eafily knowne) comes after the great Dogge into the south 17 houres, 14 minutes or 6 houres, 33 minutes before it, the declination is 27 degrees, 6 minutes north from the Line.



The Image of Andromeda is placed in the Heavens in this sort: that ftarre that is in the Girdle commeth before the great Dogge into the south 5 hours 40 minuts, hathe his declination in the north side of the line 33 degr. 43 minutes, that which is in the moft southerly foot comes 4 hours, 48 minutes before the great Dogge into the south, the declination of it 49 degrees 33 minutes in the north side of the line.

Pomahant.

The Starre named Fomahant is placed a good space

hours 44 minutes before it into the south, the declination there is 31 degrees, 28 minutes in the south side of the line.

Cetus or the Whalefish.

After these follows the Whalefish, it hath two notable ftarres in the tayle of it, the more northerly comes before the great dogge into the south 6 hours 28 minutes, the declination of it is 10 degrees, 50 minutes in the south side of the line, 14 min. after comes the southermoft into the south, and it is in the south side of the 10 degrees line, 1 minute.

Menkar.

The cleareft in the mouth named Menkar, sheweth it selfe with two other ftarres in this order, the declination is in the north side of the line 2 degrees, 37 minutes.

Aries.

In the head of Arieswhere is a cleare ftarre appearing with that in the Horne, in form as here defcribed, and comes four houres, 43 minutes into the south, before the great dogge llandeth in the north side of the line 21 degrees, 43 minutes.

Caput Medusa.

Somewhat more northerly followeth the head of Medusa as it is here deschiphered the cleareft of these comes before the great Dogge into the south 4 houres, 46 min. and is placed in the north side of the line 39 deg. 24 minut.

Perseus.

Directly north follows Perseus a bright ftarre, in forme thus, and it comes before Syrius into the south, 5 houres & a half, that is the declination is the north side of the line 48 degrees, 29 minutes.

Perseus.

Then followes the image of the Bul, in whose head there are some ftarres in the forme of a bee-hive, lying a side the greateft brightest, and moft easterly ftarre, called the eye of the bul, Aldebaran, or Oculus Tauri, comes 2 houres 14 min. before the great Dogge into the south his declination is in the north side of the line 15 deg. 46 min.

Capella.

The Coshman, Erichtonius. Auriga.

The figure of Auriga, or the Coshman, shewes him selfe a little after the Bull in the south, in such fort as is here decifered, the greateft & brightest of them, called the goat, hircus: or capella, comes before Syrius, 49 minutes before the great dogge into the south; the declination of it is 45 degrees, 34 minutes in the north side of the line.

The right Schoulder goeth 17 minutes before the great dogge toward the south; his declination is in the north 44 degrees, 51 minutes.

Also called the north Horne of Taurus, goe ons houre, 22 minutes before the great Dogge into the south; his declination is 28 degrees, 15 minutes northward.

The Gyant Orion.

About the same tyme come the Gyant Orion, being off this figure, it is easie to be known, the left Schoulder cometh before Syrius into the south 1 houre, 14 minutes the declination of it is 5 degrees, 51 minutes.

The right Schoulder cometh 38 minutes before the great dogge, and hath 7 degrees 37 minutes of northern declination. The great and bright ftarre in the left foot called Regel, goeth one houre 32 minutes before the great dogge into the south; the declination of it is in the south side of the line 8 degrees 40 minutes.

The first of the three in the Girdle, which are called the three Kinges, goe one houre 16 minutes before Syrius into the south; the declination of it is 36 minutes in the south side of the line.

Foure minutes after commeth the second or middlemoft into the south; the declination is 1 degrees 27 minutes.

Regel.

Three Kinges.

Nine minutes after the first commeth the last or third of the 3 Kinges into the south and hath his declination in the south side of the line 1 degr. 10 minutes.

These three Kinges ftand allwayes and appeare a little above the great Dogge, whereby they are easily knowne.

Here doe follow some ftarres which shewe themselves in the north, and therefore by some men are called North-ftarres.

Vrsamajor.

The Starres of the great Coach or Wagon, very favorable and fitte for those that fayle farre towards the south; they come in the forme here following specified into their highest, the hinderwheeles come into the north as they highest after Syrius or the great dogge 4 hour 12 minutes and the moft northern hath his declination from the Equinedial 63 degrees 33 minutes and is distant from the Pole 26 degrees 27 minutes, the declination of the fourthermoft is 58 degrees, 19 minutes, itis distant from the Pole 31 degr. 40 minut.

The fourthermoft of the forewheeles comes into the north to his highest right over the Pole 5 houres, 5 minutes after the great dogge is poll the fouth; his declination 55 degr. 45 minut. in the north side of the line, and is distant from the Pole 34 degr. 15 minut.

The moft northern in the forewheele followeth 13 minutes after, and then commeth to his highest; the declination of it is 59 degrees, 4 minutes and it ftandeth above the Pole 30 degr. 56 minut.

The Horse next to Coach commeth to its highest in the north, 9 houres, 8 minutes, after the great Dogge is gone through the south; it declineth to the north 57 degr. 39 minut. is distant from the Pole 32 degr. 1 minute.

The middlemoft horse comes halfe an houre after it to the highest; the declination off it is 56 degr. 52 minut. therefore it ftandeth distant from the Pole 33 degr. 8 min.

The north or the outermoft horse of the Coach commeth to the highest 7 houres, 4 minutes after Syrius is paft through the south, the declination of it is 51 degr. 12 minutes it is distant from the Pole 21 degrees 49 minutes.

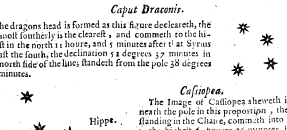
The middlemoft and brightest of the waiters declined to the north 75 degr. 43 minutes is distant from the Pole 14 degr. 17 minutes.

N O T A.

Touching the north ſtarre her declination, and how it is be uſed, with the wachmen is declinated in the diſcourſe following.

Caput Draconis.

The dragons head is formed as this figure declareth, the ſtar moſt ſoutherly is the cleareſt, and commeth to the height in the north 11 houre, and 5 minutes after it at 8 yrous is paſt the fouth, the declination 18 degrees 37 minutes in the north ſide of the line, ſtandeth from the pole 38 degrees 23 minutes.



Caſſiopea.

The Image of Caſſiopea sheweth it ſelfe beneath the pole in this proportion, the firſt ſtar ſtanding in the Chaire, commeth into the north to the highest 6 houres, 38 minutes before the great Dogge, the declination of it is 57 degrees 9 minutes to the north, and therefore 38 degrees 51 minutes.

Schedir.

Halfan houre after followeth the breſt named Schedir, the declination is 54 degrees 33 minut.

and thus it ſtandeth from the pole 35 degrees 27 minutes.

Fifteen houres after that followeth the ſtar that ſtandeth in the Hippe, it declined 58 degr. 45 minutes, ſo that it ſtandeth for the pole 31 degr. 15 minut.

Twenty minutes later followeth that which is placed in the knee, hath its declination 58 degr. 18 minutes, it is diſtant from the pole 31 degr. 42 minut.

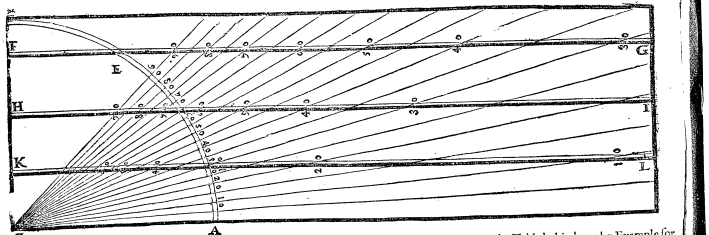
Of the making of the Degree bowes and Aſtrolabium.

For to meaſure the height of the heavenly lights above the Horizon, the Mathematicians have to that end found out many inſtruments, two of which are above all other the rareſt for toule at Ser: viz. the Common degrees bow and the Seaving or Aſtrolabium.

It is not every mans doing to marke and make an Aſtrolabium, not with ſtanding it is neceſſary, that a Pilote, (which muſt uſe the ſame) knowes if they be wel made: For to trey the things take firſt meaſure with a paſſer if the degrees are wel devided Secondly hanging the ſame on a litle ſtick or corde, trey with a thinne leadline, if the line going from above downward through the Centrum, hangeth alſo right in the lead, and if the ſame is as well turned as the Wyſer over the one as over the other ſide. Thirdly, when the Wyſer with the point ſtandeth in the height, if them both the holes (where the Sunne muſt ſhine through) ſtand under and above juſt even farre over both ſides of a like degrees, diſtant from the Zenith or Horizon, having found to be al well, then is the ſame well made.

For to draw out a degree-bow very well, make an even flatt board, of good dry wood, 1 foot and 1 5 thummes broad, and about 4 foot long, patich that with good ſtrong paper, make along the one ſide a right line, as in the following figure C A D, draw out of the point C a right line upon A C, as CB, and out of C the bow, AEB a right quadrant or fourth parth of a Circle, devide the ſame in two parts, the one halfe part thereof as A E, devide it in 90 parts or degrees, after this manner: Firſt in 3 parts, each of the ſame againe in three, thoſe parts each in 2, and each of the laſt parts in 5, the bow AE ſhall then be devided in 90 parts. Afterwards, take a Liniall, lye the one end upon the point C, the other upon each point of the foreſaid devidings, and draw thinne lines out of C, through each of the foreſaid points or degrees, in the quadrants, ſo long as they can ſtand upon the board, as the following figure plainly ſheweth.

Take afterwards with the paſſer even the halfe length of the Croſſe, after which you make the ſticke, put the ſame from point C to B, as is portrayed in F, and from D to G, draw ſuch two points with a line unto each-other even in ſuch parts as ſuch a line is cutt and devided through the foreſaid lines, comming out of the Centrum of the quadrant, even alſo muſt your ſticke be marked. If the croſſes be long or ſhort, men follaw the ſame manner, as may be ſeene on the lines H Land KL, which are drawne for Croſſes, whoſe halfe part is ſo long as CH or CK. So that if the foreſaid quadrant, by want of good handliny, is not wel devided, or the lines not wel drawne, the ſticker, there-after marked, ſhall alſo be wantable. The ſame can be marked with more certainty after a like devided points in manner as followeth. Prepare your ſelfe a ſtike, patcheed with ſtrong paper, it would be better to be beaten with braſſe) draw there upon a right line, ſo long as your ſtick, take with a ſharp paſſer the half length of the Croſſe, after which you deſire to make your tokening, putt the ſame ſo many times along the foreſaid line as thereupon may ſtand, devide each of theſe lengths of the halfe Croſſe in 10000 a like parts. Afterwards, putt upon the ſticke which you will marke, from the eye-end of, even the halfe length of the Croſſe, and make there a ſmal thwart ſtroke of from thence, put for every degree ſo many of the ſame parts as the halfe length of the Croſſe is devided in, as in the Table here under for every degree is marked.



Degree-bows Table.

de.	parts	de.	parts	de.	parts	de.	parts	de.	parts.
1	176	19	4089	37	10057	55	21716	73	36912
2	352	20	4288	38	10356	56	22070	74	61156
3	528	21	4487	39	10655	57	23756	75	61958
4	704	22	4686	40	11445	58	24807	76	71445
5	912	23	4868	41	11943	59	26025	77	79769
6	1100	24	5139	42	12660	60	27221	78	85144
7	1303	25	5697	43	12998	61	28667	79	93864
8	1502	26	6003	44	13554	62	30108	80	104301
9	1708	27	6318	45	14142	63	31653	81	117061
10	1918	28	6613	46	14781	64	33115	82	132009
11	2131	29	6970	47	15386	65	35177	83	153499
12	2349	30	7310	48	16051	66	37046	84	180311
13	2572	31	7675	49	16746	67	39112	85	219058
14	2799	32	8040	50	17475	68	41446	86	276264
15	3032	33	8418	51	18239	69	43955	87	27188.
16	3270	34	8807	52	19042	70	46743	88	161810
17	3514	35	9210	53	19887	71	49718	89	1138091
18	3764	36	9626	54	20777	72	53137	90	infinit.

Example.

For the firſt degree you ſhal marke, from that foreſaid thwartſtroke off 176, for the third degree 538, for the 10 degree 1918, of ſuch like parts, and ſo forth all other.

It you can not devide the halfe length of the croſſe in 10000, devide then the whole croſſe alſo, and take there againſt for every degree halfe ſo many points as the Table ſheweth. If you cannot doe that yet, devide the halfe croſſe in 1000, that is an o leſſer, leave againſt that the laſt letters of the nnmbre of the parts in the Table behinde, as by Example for the 15 degree, in ſtead of 3032, take 303, for the 57 deg. 1376. If your Croſſe be ſo little, that you can not devide it more then in 100, in ſuch an occaſion, leave off from the parts in the Table 2 letters behinde, it wil content your deſire.

Of the height of the Poles above the Horizon.

The height of the Pole is always even on the breadth of the Lands

Explication.

By the heigh of the Polus, that by many is called the height of the Lands, is to be underſtood the upriſing of the Pole above the Horizon, that is, how many degrees there be betwixt the Horizon and the Polus? In the right Spera lyeth the Polus without any height in the Horizon. In the Sphera parallela is the ſame from the Horizon fett up upon the higheſt 90 degrees. In the Obliqua or flopping Sphera is the riſing up diſtant from 1, 10, 20, 40, 50, degrees more or leſſe. Any man being upon the Earth, right under the Equinoctiall line, hath both Poles, the one in the north, the other in the ſouth on the Horizon, without any upriſing, he ſtandeth then alſo right under the mid-line of the Earth, without any breadth. If he turnes off from the middle-line to the north, or ſouth, the one Polus ſhall riſe up out of the Horizon, and the other goeth under, turnes he from the middle-line of the Earth 10, 20, or more degrees in breath to the north, the norther pole ſhall alſo riſe up 10, 20, degrees, the ſouther Pole to the contrary, goeth ſo much down under the Horizon, and the Equinoctiaell line turnes even ſo much ſouthward from the Zenith, the contrary is when men turnes off from the

the middle-line to the ſouth. This ſhe weth al plainly by theſe following figures.

Example.

Bring both the Poles on the Horizon, without any up-riſing, the Equinoctial line comes then right on the Zenith, and the little maſſhall ſtand upon the Globe of the Earth, right upon the middle line of the Earth, without any breath. If you be move the litle man upon the Globe of the Earth from the middeline to the N. 10 degr. the Equinoctial turneth then 10 degr. ſouthward from the Zenith, the norther Polus riſeth 10 degr. above the Horizon, & the S pol goeth downe 10 degrees there under.

From the height of the Equinoctiall.

The full filling of the height of the Equinoctial is alwayes on the Poles height and breadth of the Lands.

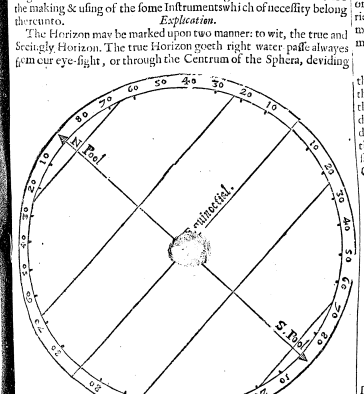
Explication.

Out of the former is ſheweth, that ſo much one of both Poles of the Horizon riſeth the Equinoctiall line turneth ſo much off from the Zenith to the Horizon. The ſpace betwixt the Equinoctiall and the Zenith, (that is the fullfilling of the height of the Equinoctial into 90) is even ſo the contrary on the height of the Polus the ſpace betwixt the Zenith and the Polus (that is the fulling of the Poles heigt unto 90) is alſo always even on the Equinoctial. Out of which followeth: If a man knowes upon any place of the Earth, the riſing or height of the Pole above the Horizon, or the height of the Equinoctiall, & ſo following the fullfilling of the height: he takes there alſo the breath of ſuch a place, that is, how far men is from the middle-line upon the Earth, being to the N. or to the S.

Becauſe the Poles and Equinoctiall line are viſible, & therefore it is not poſſible to meaſure their height by her ſelfe: men muſt throug other things, that he can ſee, come to knowledge, to wit, through the height of the Sun & of the Starres. Before we goe, forth, we will deſcribe the making & uſing of the ſome Inſtrumentswhich of neceſſity belong thereunto.

Explication.

The Horizon may be marked upon two manner: to wit, the true and Seeingly Horizon. The true Horizon goeth right water paſſe always from our eye-ſight, or through the Centrum of the Sphera, deviding



the ſame in two even alike parts, is all over from the Zenith diſtant 90 degrees, the right fourth part off an Circle.

The Seeingly is the uttermoſt of the part of the Earth or waters, which we kan ſee with our eyes, and ſtretcheth not further from us then 30 or 4 dith miles. When our eye is next unto the flat of the waters, the true and Seeingly Horizon are then one without diference, but our eye being in the height from thence, the eye ſight falleth (over the roundneſſe of the Earth) all over lower then waterpaſſe, & therefore is the Seeingly Horizon lower then the true.

Example.

The Eye-ſight being in the height from the Flatteſſe of the waters 12 feet in the firſt columne, there beſides ſtand 4 minutes, ſo much is the Seeingly Horizon lower then the True, the Eye-ſight being 140 feet in the height, then it is the Seeingly Horizon 13 minutes lower then the True.

The eye being high above the water.	The ſeeing ly Horizon is lower then the true. minutes.
2	1
4	1
8	3
14	4
20	5
27	6
37	7
39	8
53	9
67	10
85	11
100	12
140	13
163	14
186	15

Of the Meridiaens:

The Meridian is a great Circle, going through both th ePoles of the World, through the Zenith, over both ſides, Croſſewiſe through the Equinoctial, and right in the fourth and north through the Horizon.

Explication

The Miridian or middayes-Circle hath his name from *Meridies*, that is midday, becauſe that the Sunne comming in the ſouth on this Circle, makes midday. All heavenly Lights going up, and comming on this circle, are ſet upon the higheſt of the Horizon, going there through, begin again to fall ſoftly downe. If a man doth travel or ſaile right northward or ſouthward, he ſtayes alwayes under one and the ſame Meridian, but if a man turnes eaſtward or weſtward, he gets commonly alwayes another Meridian.

Of the portraiture of the Earth after the lengt and breadth.

The places upon the Earth are devided and contend after the length and breadth. The length of ſome places is a part of the Equinoctiall Line, (or ſome other parrallel) fet forth betwixt two Meridians, where of the one goeth through the beginning of the length (over the Canaries Ilands or Inſule Acores) and the other through the place it ſelfe.

The breadth is a part of the Meridian betwixt the Equinoctiall line and the place, the ſame is devided in two parts, northerly & ſoutherly.

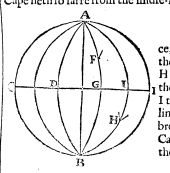
Explication.

Upon the Earth (by Example of the heavenly Sphera) are alſo remembred two Poles, with one midle line. to wit, two points upon the Earth, right under the Poles of the World, common with the Aſſe off the World, and a line in the midſt betwixt the ſame two points, right under the Equinoctial Line of the heavens. Along this middle line men doth count the length of the lands from W. to E beginning on Meridian or S. and north line, going over the Pike of Teneriffe one of the Canaries Iland till unto 360 degrees. The breadth men doe count from the midle line northward and ſouthward after both Poles, til 90 degr. This may be underſtood more plainly through theſe 2 following Examples.

I. Example.

Being in theſe following figure of the Earth A the norther, B the ſouther Pole, CDE the midle line, ADB the Meridiaen, going out of both the poles, over the Pice of Teneriffe, as the beginning of ths length, F the Cape Sint Vincent in Spaine, there over muſt be brought the Meridian A F G the part of the Equinoctiall D G (betwixt theſe two Meridians) is the length of the Cape S. Vincent 23 degrees, 40 minutes, and the bow GF the part of the Meridian, betwixt the Line and the foreſaid Cape is the northermoſt breadth 37 degrees, becauſe the Cape lieth ſo much from the line to the S. Alſo of other lauds & places.

II. Example.



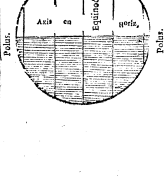
H being the Cape de bona Eſperance, the ſouthermoſt point of Africa, & there is drawn over the Meridian A E H B, the part of the Equinoctial D I is the length of the foreſaid Cape, & H I the part of the Meridian betwixt the line and the Cape, the ſouthermoſt breadth 34 degrees, becauſe the ſame Cape lieth ſo much from the line to the S. Alſo of other lauds & places.

From the difference of the common flat Sea-mappes, with the round of the Earth.

In the common Sea mappes are the Sea coaſts and corners of the Lands marked after her courſes & diſtances from the one to the other, alſo after her breadth: but becauſe of the unevenneſſe which they have through her flat forme, with the roundneſſe of the Earth it is not poſſible to put the ſame alſo there beſides after her right length. All Meridians or lines from ſouth and north upon the Earth how farre the ſame upon the middle line ſtand one from another, ſtretching northward or ſouthward, comes at the end of 90 degrees from the line upon a point together, but upon the flatt Sea Cardes though the ſame Meridians ſtand cloſe or far one from another, they touch each-other never, but ſtand always even farre one from another. Alſo with all courſes, except only that from eaſt and weſt.

Of the faſhion of the Sphera.

The Sphera is noted after 3 manner: 1 *In Sphera Recta.* 2 *Parallela*, and thirdly, *Obliqua*, that is Right Even-wide, and flooping Sphera.

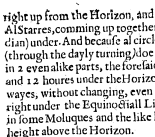


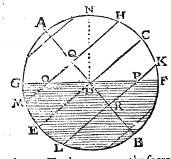
Explication.

1. *Sphera Recta*, or right Sphera, is ſo called, becauſe that when the Poles of the World lye on the Horizon, and the Equinoctiall common with the Zenith, in manner as this Figure: All Heavenly Lights (as the Sunne, Moone, or Starres, or the ſame which ſtand cloſe by or farre from the Equinoctiall or the Pole) doe riſe

right up from the Horizon, and goe alſo right downward there under Al Starres, comming up together goe alſo together, (through the Meridian) under. And becauſe al circles, which the Sunne, Moone, or Starres (through the dayly turning) doe deſcribe, are devided from the Horizon in 2 even alike parts, the foreſaid lights are alſo even 12 houres above, and 12 houres under the Horizon; Day & night are vpon ſuch places alwayes, without changing, even long. So it goes with thoſe that dwell right under the Equinoctiall Line, without any breath, as in S. Thome, in ſome Moluques and the like lands, where none of both Poles are in height above the Horizon.

2. *Sphera Parallela*, or the Sphere of evenwideneſſe, is alſo called, becauſe that when the Aſſe of the World ſtandeth right in the hieght, and the one Polus in the Zenith, the Equinoctiall lyeth then common with the Horizon, ſo as this figure doth ſhew. At the place upon the Globe of the Earth, where ſuch an ſituation of the Sphere is, are al the ſtarres of the Firmament (through the dayly moving) carried round Parallel, or even wide with the Horizon. All thoſe which are above the Horizon, ſtay continually there above, without going under all thoſe which are there under, ſtay alſo continually there under, without going up. Out of which followeth (becauſe the half one part of the Equinoctial time ſtayes above the Horizon, and the other halfe part there under) that the Sunne being in the part of the Ecliptica that ſtandeth above the Horizon goeth alſo not under, but maketh a day of ſix moneths: To the contrary, being in the part of the Horizon, comes not up, and maketh alſo a night of ſix moneths.





3. *Sphera obliqua*, or ſlooping Sphera, is ſo called, becauſe the Aſſe of the World, nor the Equinoctiall lay not flat downe, nor ſtand right upon the Horizon, but thwart & crooked, through which comes that all Lights of the Heavens goe not right up from the Horizon, nor evenwide there by along, but riſe flooping there above, and ſo againe downewards. So that ſome Starrer about the high Pole, alwayes ſtay above. To the contrary, the ſecret Pole there about commeth never above, and makes ſome other unlike upgoings and undergoings. Thoſe which ſtand from the Equinoctial to the high pole are more which after the ſecret Pole, leſſe then 12 houres above the Horizon. Alſo goes it with the Sunne. Out of which followeth, that thoſe, which dwell in ſuch an Sphera, have the dayes and nights unlike: ſometimes long and ſometimes ſhort againe. How the one pole is higher above the Horizon how unliker the dayes and nights are, and the up and undergoing of the up and undergoing of the ſtarres are alſo unliker, becauſe the Circles which they doe deſcribe, in going round, are cut in more uneveneſſe from the Horizon.

Example.

F D C being the Horizon; CDE the Equinoctiall, BDA the Aſſe of the World, not right up to the Zenith N, nor common with the Horizon FDG, but the one Polus there above in the height, as from G to A, the other going downe there under, from F unto B. Alſo the Equinoctiall with all parralleles, thwart upon the Horizon. Let the Sunne be on the Tropicum Cancri H Q M at the midnight upon the loweſt under the Horizon on M: becauſe he goeth in 12 houres from midnight to midday, from M to H, he goeth the halfe part, from M to Q in 6 houres, and therefore in leſſe then 6 houres from M to O on the Horizon, where he riſeth, and in more then 6 houres from Q to H, the halfe day ſtall then be longer and the halfe night ſhorter then 6 houres. To the contrary, let the Sunne, be on the Tropicum Capricorni at midnight on L, he ſhall goe from R to L in 6 houres and more then 6 houres till on P, on the Horizon there upon he goes, and therefore in leſſe then 6 houres from P to K on the mid-day, ſo that the halfe day is ſhorter and the halfe night longer then 6 houres.

The vſaunce of the Aſtrolabium and Degre-bow.

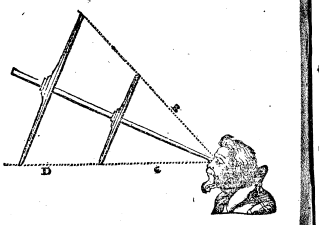
HOld the Aſtrolabium with the ſinger by the uppermoſt ring, and let the Sunne ſhine in the uppermoſt eare (or little Table) till right upon the Lowermoſt eare, the utmoſt of the wiſer ſheweth then the outſide of the height of the Sunne. In the piloting men muſt have a care that the Aſtrolabium be loſe and doth drive untyed, the moſt part of all theſe can be turned with the hand, the fourth part of an degree, to ſhew over the one or the other ſide.

Set the Degree bow with the one end of the ſticke (being on the inſide or out-ſide of the eye) after this manner; that the end of the ſticke con es right to ſtand next the middle-point of the moving of the eye ſight, putt then the croſſe ſo long off from you or unto you, till the uppermoſt end comes upon the middeſt of the Sunne or Starres, and the permoſt end comes upon the Horizon; The Croſſe ſtall then on the ſticke ſhew the degree of the height of the Sunne.

If the Sunne be farre or cloſe gone up from and above the Horizon that can not miſlead a man in the uſing of the Aſtrolabium, but it is not ſo with the Degree-bow. The Sunne or Stars being riſen high from the Horizon the croſſe comes nearer to the eye, then if the ſame were but a little riſen and ſtood cloſe by the Horizon. Through which it makes the eye (ſeeing to the lowermoſt, then againe to the uppermoſt end of the Croſſe) to greater moving and up-doings, when as the Sunne and the ſtarres ſtand low. And becauſe the middeſt of the eye ſight, through ſuch moving up and downe alſo is moved up and downe next the end of the ſticke: men doth ſee then ſmaller corners, then if it did ſtaye unmoveable, without up and down-going next the end of the ſtaye unmoveable, without up and down-going next the end of the ſticke, therefore cometh the croſſe nearer to the eye then it ſhould be, and men doth finde to much height. Such is wel known by many experienced men, which therefore ſhortned their ſticke ſomewhat, or did butt the beginning of the degrees one degree and an halfe nearer on the eye end, but it is not the right way for to mend the forefayd failings. The beſt of all is (as I thinke) that a man upon every ſundry height that he will make, prove, with 2 Croſſes ſett upon alike Degrees, how men muſt putt the ſticke in order, that men the ends of the ſame two Croſſes may ſee right over another, having found that, and the one Croſſe after-wards putt of, and ſett the ſticke againe in the ſame faſhion as before, men ſhal alſo paſſe al failings which might come out of the up & down-going of the eyes and can in any way be mended.

Example.

Deſiring to meaſure the height of the Sunne, or the height of ſome Starres in the ſouth I make an account how high the ſame ſhall ſtand, or I take the right height thereof before the ſame comes in the ſouth, which I take to be 50 degrees ſet therefore the 2 Croſſes each upon their 50 degrees, and the ſtick in the corner within, or in the ſplit of the eye without the eye, and turne the head before or behinde over the one or the other ſide, till that I ſee utmoſt ends of both the Croſſes right over another, as the lines A B and C D, in the following figure doe ſhew. The ſame figure appeareth plainly, that the eye ſight ſtrales over the end of the Croſſes ſhall come then over another with the Lines, which men may draw over the ends of the Croſſes, untill the point on the end of the ſticke, which doth agree with the center of the quadrant, or the beginning of the a like points whereupon the ſticke is marked. Such faſhion of a ſticke be kept in the memory, I take the one Croſſe off, and ſett the ſticke againe in the forefaid faſhion on the eye, and count alſo without any fault of the eye.



Men doth meaſure as well with the Degree-bow as Aſtrolabium two ſeverall things a like. The height of the Sunne or of ſome ſtarres above the Horizon, and alſo their ſuſtulling of the height, that is, how farre the ſame ſtand from the uppermoſt point of the heavens above our head.

The edge of the Aſtrolabium is commonly marked with dobbel number, the one begins from beneath up ward, with 1, 10, 20, 30 &c. Ending above next the ring with 90. The other begins above next the Ring with 1, 10, 20, 30, downwards, ending with 90 on the lowermoſt tide of the halfe Circle. When as you doe make an account in the Sunne with an Aſtrolabium and that you doe uſe the firſt number that, ſheweth, how many degrees the Sunne ſtands elevate above the Horizon, therefore the higher the ſame ſtands, the more number you doe get. If you doe uſe the other number you doe not finde the height of the Sun, but the ſuſtilling of the height, that is, how farre the Sunne ſtandeth from the uppermoſt point of the heavens, above our head, and therefore how the Sunne ſtands higher, how leſſer number (contrary to the other) you doe become.

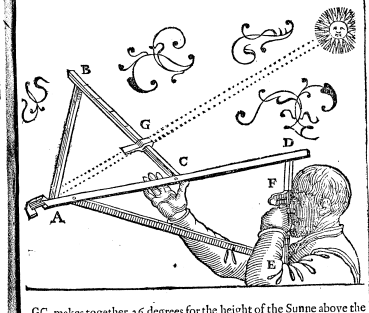
The Degree-bow is alſo marked with 2 ſeveral numbers, the one hath after

after the eye-end 90 and is to the utmoſt end counted leſſe, as from 90 till, 80, 70, 60, &c. The other begins by the eye-end, and waxeth, to the contrary, after the utmoſt end, as from 1 to 10, 20, 30 &c. When as you meaſure the Sunne or any ſtarres with the Degree-Bow, and that you doe uſe the firſt number, you finde then, how higher the ſame ſtandeth above the Horizon, how higher the Sunne and Starre ſtand, how a men then gert the Croſſe Cloſer to the eye. If you doe uſe the other number, you finde not how high any heavens light is, that men doth meaſure above the Horizon, but how further that ſtandeth from the Zenith the lower the lights ſtand & the Croſſes comes further from the eye, and the number is more.

Although men in the meaſuring with the Degree-bow to the Sunne (for the ſtrengthening of the eyes) uſed redde or little blew glaſſes not with ſtanding is it trouble ſome and an hinderance for the eye-ſight, eſpecially when the ſame goeth high; Men can then eaſily finde the height of the Sunne out of his Zadaw, through ſuchlike turning. Degree-bow or double Three corner, as here following is portrayed, whereof the one ABC containes 60 and the other, ADE 30 degrees: putting the litle turning thing of G upon a certaine number of Degrees, after the diſiring of the height of the Sunne, and ſeeing through the Viſire F, on the lowermoſt end of H the Horiſon, men doth move F ſo long up and downe, till that the ſhadow of G comes to fall upon the litle Table A, betwixt the two Lines, the number of the degrees putt then betwixt GC, and D F, together, it ſheweth then the height of the Sunne above the Horizon, or the numbers betwixt EF and GB, together the diſtance or Sunne ſtanding off from the Zenith.

Example.

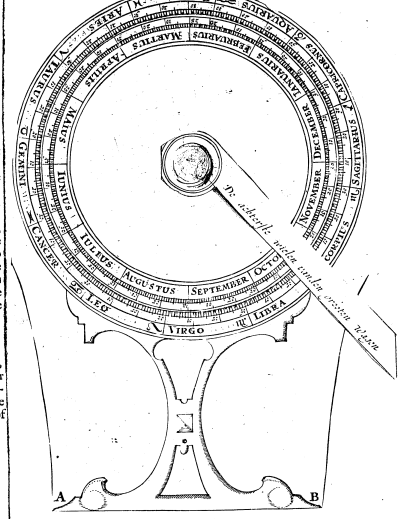
I putt the litle moving thing of G upon 20 degrees, from C to B, ſeeing through the Viſire F, drawing it up and downe, till that together the ſchadow of G falls betwixt the two Lines upon the white little Table A, and the lower moſt ſide of the foreſaid litle table right upon the Horiſon, I finde ſo betwixt D and F 16 degrees, the ſame by the 20 of



GC, makes together 36 degrees for the height of the Sunne above the Horizon, or the 40 from G to B, and 14 from F to E, together 45, gives the fulfilling of the height, or the diſtance of the Sun from the Zenith.

For to finde the houre of the day and of the night.

FOr to find the houre by day upon all heights, is the beſt and fureſt way, through ſuch an Equinoctiall-Compaſſe, as is portrayed in the water-tydes. In the night you may find the ſame through an night-wiſeras the following figure, the ſame hath two round ſhives, the one is unmoveable, the other moveable, upon the lowermoſt unmoveable ſtand the 12 Signes of the heavens, next the moneths and dayes of the year, upon the moveable, the houres, the ſame doth turne with another wiſe (whoſe one right ſide reſponts right upon the middle-point) beyond a nayle with an hole or pipe, through which you may ſee. The uſing of the night-wiſers is thus: Men ſet firſt the teeth, next the twelfth houre on the moveable ſhive, on the day of the yeare, upon the lowermoſt unmoveable ſhive, and hold the Inſtrument in the height, with the lowermoſt edge of the foot A B right waterpaſſe, ſo that men through the hole of the Nayle may ſee the Northſtarre, turning then the wiſer upward and downward, ſo long till that the hinder ſomeſt wheele of the great Wagon comes on the Wiſer, that being ſo, the Wiſer ſhall then ſhew, on the moveable ſhive, the right houre. If men in ſtead of the hinder ſomeſt Wheeles of the great Wagon doth uſe the cleareſt of the Watchmen it ſhall be 4 houres and 15 minutes later then



the wiſer ſhall ſhew, becauſe the foreſaid Wheeles of the great Wagon goeth ſo many tymes before.

Men can alſo finde the houres out of the right Aſcenſion of the Sunne and Starres, thus: When you ſee ſome Starres in the ſouth, whole right Aſcenſion is knowne, and men knowes alſo the right Aſcenſion of the Sunne upon the ſame day. drawing the Suns Aſcenſion from the Aſcenſion of the Starres, that which then remaineth muſt be dealth through 15 (for 15 degrees makes an houre) which doe ſhew the right houre of the ſame time. If the Aſcenſion be more then the Aſcenſion of the Starre, in ſuch a way ſhal men adde 360 degrees by the Aſcenſion of the ſtarre and goe then forth in ſuch a way as before is deſcribed.

I. Example.

Upon the tenth of April, in the evening I ſee in the ſouth the Hart of the Lyon, whoſe right Aſcenſion is 174 degrees. The Sunnes right Aſcenſion upon the ſame day is 19 degrees, take the ſame off from the Aſcenſion of the Starre, there remaines 128 degrees, the ſame devided through 15 I find 8 houres and 8 remaining degrees, and when 15 degrees make an houre, then makes every degree 4 minutes, the remaining 8 degrees make alſo 32 minuts of an houre, it ſhall then upon that time 8 a clocke, 32 minuts, to reckon off from the midday,

II. Example.

Upon the fifth of November in the night I finde in the ſouth the Starre *Aldebaran* the ſouther-eye of the Bul, whoſe right Aſcenſion is 64 degrees, the Suns right Aſcenſion upon that day 220 degrees, which is more then theſe of *Aldebaran*, therefore I put unto the Aſcenſion of the Starre 360 degrees, is together 424 degrees, drawing there out the Sunnes right Aſcenſion 220, there remaines 204 degrees for the diffe-rence of the time betwixt the Sunne and the foreſaid Starres, the which devided through 15, comes 13 houres, and alſo 9 remaining degrees, theſe make 36 minutes, it is then 13 hours and 36 minutes from the midday, that is, one houre 36 minutes after midnight.

For to find the Aſcenſion upon every day of the Yeare, as well of the Sunne as of the Starres, we have put here unto two litle Tables, the one of the Sunne, ſhewing from 5 till 5 dayes the Sunnes Aſcenſion, out of which the ſame for other dayes there betwixt eaſily may be found, The other for 300 of the principal Starres, both only by degrees, becauſe this will ſerve very well to that end.

A table of the right ascension of the Sunne.

The first number in the table sheweth the day of the moneth, he second the degrees of the ascension of the Sunne on that day.

Ianua.		Februa.		Martius		April.		Majus.		Iunius	
da	gra	da.	gra.	da	gra	da	gr.	da	gr.	da	gr
5	287	5	319	5	346	5	14	5	42	5	73
10	293	10	324	10	351	10	19	10	47	10	78
15	297	15	329	15	355	15	24	15	52	15	83
20	303	20	334	20	360	20	28	20	57	20	88
25	308	25	339	25	4	25	33	25	62	25	94
30	314	28	342	31	11	30	38	31	68	30	99

Iulius.		Augusti.		Septe.		Octob.		Novem		Decem.	
da.	gra.	da	gra	da	gra.	da	gra	da	gra.	da	gra
5	104	5	135	5	164	5	195	5	230	5	251
10	109	10	140	10	168	10	195	10	235	10	257
15	114	15	145	15	173	15	200	15	241	15	263
20	119	20	149	20	177	20	205	20	246	20	268
25	124	25	155	25	182	25	209	25	251	25	274
30	130	31	159	30	187	31	215	31	256	31	281

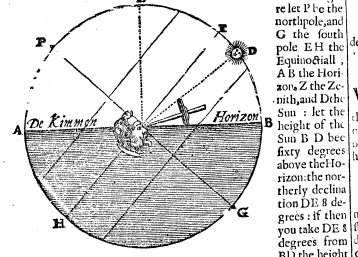
A Table of the right ascension of the primest starres.

The Girdle of Andromeda	12 degrees
The clearest in the head of the Ram	27 degrees
Menkar the brightest in the mouth of the Whales	41 degrees
Aldebaran, the south eye of the bull	64 degrees
Capella in the lefshoulder of Erichtonius	71 degrees
Rigel the left foot of Orion.	74 degrees
The star in the left shoulder of Orion	84 degrees
Syrius the great Dogge	97 degrees
The north head of Gemini	189 degrees
The fouth head of Gemini	211 degrees
Procyon the little Dogge	110 degrees
The brightest in the water snake, Cor Hydræ	137 degrees
Regulus the Hart of the Lyon	147 degrees
The tayle of the Lyon	172 degrees
Vindemiatrix the right wing of Virgo	191 degrees
Spicia Virginis the eare of corne	196 degrees
Arcturus the brightest in Bootes	210 degrees
The fouth Wright	214 degrees
The north wright	210 degrees
The brightest in the north Crowne	230 degrees
Antars the Hart of the Schorpion	242 degrees
The Head of Herculus	254 degrees
The head of Serpentarius	259 degrees
The tayle of the Eagle	282 degrees
Vultur the clearest in the Eagle	293 degrees
The star in the mouth of the horse Pegasus	321 degrees
Somahaut the brightest in the end of Aquarius	339 degrees
Marcab the shaft or foot of Pegasus	344 degrees
The uttermoit in the wing of Pegasus	358 degrees
The most northerly in the Whales tayle	360 degrees

How to finde the height of the Pole by the Sunne.

TO finde the height of the Pole by the Sunne , one thing is specially to be marked, to wit, whether you are northward or fouthward from the Sunne, whether the Sunne ftandeth northward or fouthward from you is eafily knowne , when you are infuch a place upon the earth as is far from the line, or from the Sun but when the Sun is neare almoft above your head , then you can not wel fee it with your eye, therefore fet a compaffe before you that you, may fee where n, and S is, then take your Aftralobium, & fet it fo that the one edge thereof ftand right fouth and the other north, and then you fhall fee at a hayres breadth, whether the Sunne being at the height , ftandeth northward or fouthward from the head point or Zenith: it then you wil feeke the height of the Pole, when you are on the north fide of the Sunne, that is, when the Sunne is fouthward from you, then take the juft height firft, and as much as the declination of the Sunne is northward, take it out of your height, & that which refteth is the height of the Equinoctial in the fouth , which fubftracted out of 90 (as here before is declared) then you have the height of the north Pole.

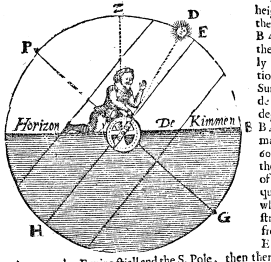
Example.



In this figure let P be the northpole, and G the fouth pole EH the Equinoctiall , A B the Horizon, Z the Zenith, and D the Sun : let the height of the Sun B D bee fixty degrees above the Horizon: the northerly declination DE 8 degrees : if then you take DE 8 degrees from BD the height of the Sun, there will reft BE 52 degrees, which is the height of the Equinoctiall, which taken out of 90 degrees, reſteth 38 degrees, for the height of the north Pole A P, as here before is ſheweth.

If the declination be foutherly , then adde into the height aforefayd the height of the Line in the fouth, which taken out of 90, as aforefayd, it heaveth you the height of the north Pole.

Examples.

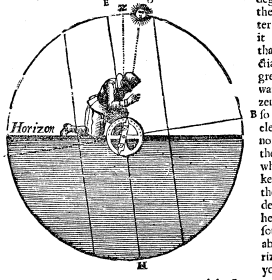


Let the height of the Sunne D B 40 degr. the foutherly declination of the Sun then added ED 20 degr. to D B 40 degr. it maketh E B 60 degrees, the height of the Equinoctiall , which fubftracted from 20, as E G the diſtance between the Equinoctiall and the S. Pole, then there will reſt 30 for G B , that is as much as the S. Pole is gone under the Horizon as before is ſhewed, ſo much as the one Pole is under the Horizon juſt ſo much is the other above it, the north pole P ſhal here be elevated 30 degrees,

But if the height of the Sun being added unto the declination maketh more then 90 degr. then you muſt underſtand, that the Equinoctial is N. ward from you head juſt ſo much as the aforeſaide addition is more then 90, and ſo conſequently the S. Pole alſo ſhall be ſo much elevated.

Example.

Looke into the figure next following, where in let the height be D B 80 degr. and foutherly declination E D 18 degrees , then it you adde I D 18 degrees to I D 80 degrees , the height of the Sun , there will be 90 degrees for B E, ſeeing then that from the Horizon B, to the Zenith Z (that is the point in Heaven right above our heads) is juſt 90 degrees as in the 12 Chapter is thaught) it followeth that Equinoctiall is 8 degrees northward from the zenith Z, and B ſo 82 degrees elevated in the north , above the Horizon: when AE is taken out of 90 there reſteth 8 degrees for the height of the fouth Pole, G above the Horizon B, then you muſt underſtand, that you are betweene the Line and the Sunne.



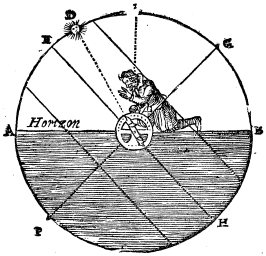
How you ſhall finde the height of the Pole, when you are ſouthward from the Sunne.

WHen you perceive that you are fourthward from the Sunne , that is, when the Sun ſtandeth northward from you, firſt (as aforeſaid) take the height of the Sun: then if the declination be fouthwards, take it out of your height which you have found, and then you ſhall have the height of the Equinoctiall , which ſubſtracted from 90 , it ſheweth under what height you are, fouthward from the Line.

Example.

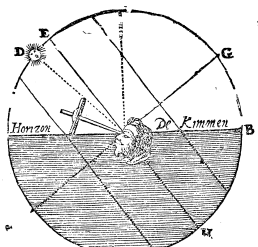
Behold the figure above ſtanding. Let A D be the height of the Sunne in 64 degrees: the foutherly declination E D 16 degrees : which ſubſtracted from A D the height of the Sunne, there remaineth for AE 48 degrees the height of the Equinoctial in the north , which ſubſtracted out of 90, then the height of the ſouth Pole G B will be 42 degr.

If the Declination be northerly , then adde it to the height found out, if then the addition bee leſſe then 19 it ſheweth you the height of the



of the Equinoctiall , which taken out 90 , you finde the height of the ſouth Pole.

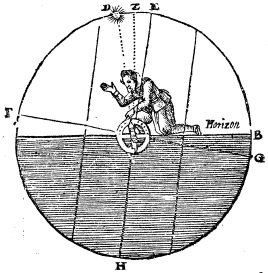
Example.



Looke on the Figure with his circles as it followeth here after, let AD the height of the Sun in the N. be 50 degrees and D E the northerly declination 15 degrees then adde E D 15 toDA 15 degrees , then you have 63 degrees for A E the height of the Equinoctiall , then G B, the height of the ſouth Pole is 25 degrees for as in the 16 former it is ſheweth , the height of the Equinoctiall EA with the height of the Pole G B always make 90 degrees.

But if the height and the declination of the Sun added together more then 90, you muſt note that the Line is fouthward from your Zenith, as much as that number is above 90.

Example.



Look on the following Figuere , let the height of the Sunne A D in the north be 84 degrees , the declination ED 21 degrees adde the together, then you have A E 150 degrees , which in the diſtance betweene the Equinoctiall & the Horizon in the North: now mark that A E is 15 or and P the Pole and E the Equinoctiall are even 90 degrees from each other then it followeth that P from A is 15 degrees, that is the height of the n. Pole above the Horizon, and ſo much you muſt be northward from the Line, and you muſt alſo marke that you are betweene the and the Sun.

How you ſhall finde the height when you are right under the Sunne.

IF you underſtand the rules before going well , then this is eaſie to be found, If you be right under the Sunne , that is when the Sun is elevated 9 degrees , then you are even as many degr. northward or fouthward from the line , as the Sun hath northerly or fouterly declination.

The Explication thereof.

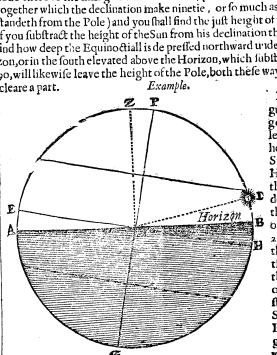
Suppoſe that you finde the height off the Sunne above the Horizon to be 90 degrees , and that it is declined towart the north 16 degrees then are you alſo 16 degrees northward from the Line , and the north Pole ſhall be ſo much elevated.

But if the Sun hath no declination, that is, when it ſtandeth even in the line , then you muſt underſtand , that you are alſo right under the line and ſo both the Poles are on the Horizon with out any eleavation.

How you ſhall finde the height of the Sun northward in ſuch places where as it goeth not aboune.

They that in Sommerſaile to Moſcovia , in the moneths May , Iune and Iuly , comming about the north Cape, finde, that the Sunne at that tyme goeth not downe there, but is allwayes above the Horizon, ſo that a man according to the rules aforeſaid, may not onely ſeeke the height of the Pole by the Sunne, when it is higheſt fouthward, but alſo when it is northward at the loweſt , in this manner following Take the height. of the Sunne with the croſſe ſtaffe , when it is loweſt in the north, and adde there to the filling of the declination, (which is ſuch a number as together which the declination make ninetie , or ſo much as the Sun ne ſtandeth from the Pole) and you ſhall find the juſt height of the Pole: or if you ſubſtract the height of the Sun from his declination then you ſhall find how deep the Equinoctiall is de preſſed northward under the Horizon, or in the ſouth elevated above the Horizon, which ſubtracted from 90, will likewiſe leave the height of the Pole, both theſe wayes I will declearе a part.

Example.



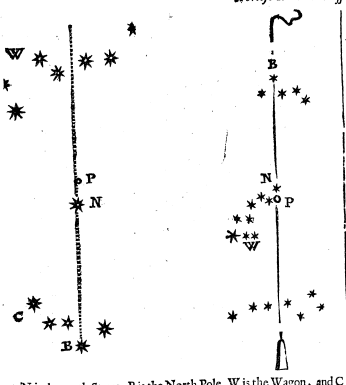
Mark the figuere aforegoing , where let B D be the height of, the Sun about the Horizon , in the north 7 degrees H D the declination of the Sun 20 degrees , then ſhall D P, the filling of the declination , or the diſtance of the Sun from the Pole be 70 degrees : now if you adde P D the filling of the declination 70 , to be B D 7, the height of the Sun, you ſhall finde 77 degrees for B P the height of the Pole.

Another Example.

If you take the height of the Sun A D 7, from HD 20, the declination of the Sun, there will remain 13 for H B, and ſo much is the Equinoctial in the north depreſſed under the Horizon , which if you ſubſtract off HP 93, there remaineth for A P 77, the height of the Pole , as above ſaid.

Of the north Starre, and how you ſhall find the height thereby.

ALl fixed Starres, as in te former writing is declared , with the time doe alter their declination ſome increaſe , and ſome diminiſh , one more then the other, the north Star at this tyme is one of thoſe which is moſt ſubject to changing , which in anno 1600 ſtood from the Pole two degrees 50 and a halfie minutes , and in the yare 1700 it will ſtand two degrees and 16 and a halfie minutes, ſo that every 3 yeare it cottmeth a minute nearer unto the Pole in Anno 1608 it ſtood from the Pole two degrees , 18 minutes, and thereof we have here made our reckoning, if then you will know the height of the north Starre when it is right under the Pole, then you muſt adde two degrees, and 48 minutes, to the heihgt (that is the higheſt) then you muſt ſubſtract two degrees and 48 minutes, and then you ſhal have the right height, but to know when it is right under the Pole at the loweſt, then looke when the great Wagon ſtandeth right under the North Starre of Leyen , if you take a lead or ſtick alſo it hang in your fight right upon Leyen , and the faid line or ſtick alſo hangeth right betweene the Wagon and the horſes, then Leyen is right above the Pole at the higheſt : to the contrary , when the Wagon ſtandeth above Leyen and a Line is hanged betweene the Wagon and the deth above Leyen and a Line is hanged betweene the Wagon and the breaſt of Caſſiopes , for when it ſtandeth right under Leyen, then is Leyen is right unter the Pole at the loweſt , and when it is right above Leyen is right unter the Pole at the higheſt above the Pole. But to know the Leyen, then Leyen is at the higheſt above the Pole. But to know the ſtarres that are in the breaſt of Caſſiopeia, you muſt underſtand, that it is the ſecond off the five higheſt Starres that ſtandeth in Caſſiopeia : or if you take a ſtaffe and hold it thwart wiſe , with one end right betweene the Wagon and the Horſe, and the midle part over the north-Starre , then the other end will ſhow right upon the faid Starre , which ſtandeth in the breſt of Caſſiopeia, which wil eaſily bee underſtood by this figure



N is the north Starre: P is the North Pole. W is the Wagon, and C are the Starres of Cassiopeya; where of B is the breft.

This is a certaine and a generall rule, which by no meanes can fayle, and in all places off the earth(where we may fee and vfe the North Starre) is without any alteration.

For to know when the north-ſtarre is upon the higheſt and loweſt, have a care vpon the great Wagon, when the ſame commeth under the north-ſtarre, ſo that when men let hang a lead line right over the north ſtarre, that theſe men alſo comes to haug in the middeſt betwixt through the Wagon & the Horſes, then is the northſtarre right upon the higheſt above the Pole. Or when the Wagon alſo comes above the North ſtarre, that then men doth hang a leadline betwixt through the Wagon and Horſes, that theſe then alſo hang right over the North ſtarre, then is the North-ſtarre right under the Pole upon the loweſt, as in the former figure is portrayed.

Or when the ſtar comes in the Breſt of Caſſiopea, right above the North ſtar, then is the North ſtar above the Pole upon the higheſt.

When the ſame is right under the Northſtarre then is the North-ſtarre, upon the loweſt under the Pole, ſo as theſe Figure here above doth ſhew.

The Starres of the Wagon are well knowne of every one. The ſtarres in Caſſiopea, there in 5 the principals, as here above is portrayed. The ſecond of theſe that is, which ſtandeth fartheſt diſtant from the North-ſtarre, theſe is in the Breſt, and ſtandeth almoſt even farre from the North-ſtarre, as the northermeſt fore wheele of the great Wagon.

If men hold a right ſticke upon the eyeſight, with the one end throug betwixt the Wagon and the Horſes, and the middleſt over the North-ſtarre, the other end ſhall then ſtretch over the foreſaid ſtarre, which ſtandeth in the Breſt of Caſſiopea.

The uſe of the naeth ſtar when you take the height by the wayters which are on the northern hinder wheele of the great Wagon.

FOr as much as many Pilots know north the names of many of the fixed ſtarred, and therefore follow the uſe of the N. ſtar according to the points of the compaſſe: we have for the uſe of theſe men, made two ſorts of tables the one according to the waters (which we have mended, the other according to the northern hinder wheele of the great Wagon both of them on the foure ſtrokes north, ſoutheaſt and weſt, and in as much as in this kinde or worke the north ſtar hath a different ſtanding in ſundry heights of the Pole, we have calculated the tables agreeing to divers heights or latitudes from 10 degrees to 10 degrees as followeth

At the height of 10 degrees.

When the brighteſt of the wayters ſtandeth in the { Eaſt, then is the N. ſtar under the pole 1 degrees 18 minutes. North, then is it 2 degrees 48 minutes under the pole. Weſt 1 degree 22 minutes above the pole. South 2 degrees, 18 minutes above the pole.

At the height of 20 degrees.

When the brighteſt of the wayters ſtandeth in the { Eaſt, the N. ſtar is 1 degree, 31 minutes under the pole. North, the N. ſtar is 2 degrees 18 minutes under the pole. weſt, the N. ſtar is 1 degrees, 19 minutes above the pole. South, the N, ſtar is 2 degrees 19 minutes above the pole.

At the height of 30 degrees.

When the brighteſt of the wayters ſtandeth in the { Eaſt, the N. ſtar is 1 degree 25 minutes above the pole. North, the N. ſtar is 2 degrees 18 minutes under the pole. weſt, the N. ſtar is 1 degree, 14 minutes above the pole. South, the N. ſtar is 2 degrees 19 minut, higher than the pole.

At the height of 40 degrees.

The wayters in the { Eaſt, the N. ſtar is 1 degree, 39 muntes under the pole. North, the N. ſtar is 2 degrees 10 minutes below the pole. weſt, the N. ſtar is 2 degree, 14 minutes above the pole. South, the N. ſtar is 2 degrees 19 minutes above the pole:

At the height of 50 degrees.

The wayters in the { Eaſt, the N. ſtar is 1 degree, 44 minutes below the pole. North, the N. ſtar is 1 degree, 3 minutes below the pole. weſt, the N. ſtar is 1 degree, 3 minutes above the pole. South, the N. ſtar is 2 degrees 20 minutes above the pole.

At the height of 60 degrees.

The wayters in the { Eaſt, the N. ſtar is 1 degree, 52 minutes under the pole. North, the N. ſtar is 1 degree 16 minutes below the pole. weſt the N. ſtar is 1 degree 15 minutes higher than the pole. South, the N. ſtar is 2 degrees 20 minutes above the pole.

At the height of 70 degrees.

The wayters in the { Eaſt, the N. ſtar is 2 degrees 5 minutes under the pole. South, the N. ſtar is 2 degrees 11 minutes under the pole. weſt, the N. ſtar is 32 minutes above the pole. South, the N. ſtar is 2 degrees 22 minutes above the pole.

At the height of 80 degrees.

The wayters in the { Eaſt, the N. ſtar is 2 degrees 33 minutes under the pole. North, the N. ſtar is 2 degrees 12 minutes under the pole: weſt, the N. ſtar is 32 minutes under the pole. South, the N. ſtar is 2 degrees 44 minut, higher then the pole.

The uſe of the North-ſtarre, agreeing with the northermoſt hinderwheele of the Wagon.

At the height of 10 degrees.

When the northermoſt wheele of the wagon ſtandeth in the { Eaſt, then is the N. ſtar higher then the pole 1 degree 1 minut. North, the N. ſtar is 2 degrees 17 minutes above the pole. weſt, the N. ſtar is 1 degree 14 minut. lower then the pole. South, the N, ſtar is under the Horizon out of ſight.

At the height of 20 degrees.

The northern weel of the Wagon. { Eaſt, the N. ſtar is 54 minutes higher then the pole. North, the N. ſtar is 2 degrees 17 minutes under the pole. weſt, the N. ſtar is 1 degr 26 minutes lower then the pole. South, the N. ſtar is 2 degrees 27 minutes above the pole.

At the height of 30 degrees.

The northermoſt hinder-wheele of the wagon. { Eaſt, the N. ſtar is 47 minutes higher then the pole. North, the N. ſtar is 2 degrees 27 minutes under the pole. weſt, the N. ſtar is 1 degrees 26 minutes above the pole. South, the N. ſtar is 2 degrees 27 minutes under the pole.

At the height of 40 degrees.

The northermoſt hinder wheele. { Eaſt, the N. ſtar is 38 minutes above the pole. North, the north ſtar 2 degrees 27 minutes under the pole. weſt, the N. ſtar is 1 degree 34 minutes below the pole. South, the N. ſtar is 2 degrees 28 minutes above the pole.

At the height of 50 degrees.

The northermoſt wheele. { Eaſt, the N. ſtar is 24 minutes above the pole. North, the N. ſtar is 2 degrees 34 minutes under the pole. weſt, the N. ſtar is 1 degree 45 minutes under the pole. South, the N. ſtar is 2 degrees 28 minutes above the pole.

At the height of 60 degrees.

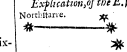
The northermoſt hinder-wheele. { Eaſt, the N. ſtar is 2 minutes above the pole. North, the N. ſtar is 2 degrees 26 minutes under the pole. weſt, the N. ſtar is 2 degrees 1 minute under the pole. South, the N. ſtar is 2 degrees 28 minutes above the pole.

At the height of 70 degrees.

The northern hinder wheele. { Eaſt, the N. ſtar is 14 minutes under the pole. South, the N. ſtar is 2 degrees 24 minutes under the pole. weſt, the N. ſtar is 2 degrees 21 minutes under the pole. South, the N. ſtar is 2 degrees 29 minutes above the pole.

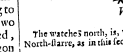
At the hight of 10 degrees the north hinder wheele of the great Wagon can not come from the Horizon as the ſame high with the North ſtar.

Explication, of the E.W.S. and N. of the Watches, and the great Wagon.



THe Watches eaſt, that is, when the cleareſt or middleſt ſtandeth to the eaſt even high above the Horizon, ſo as the North-ſtarre, in manner as this figure doth ſhew.

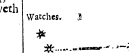
Watches.



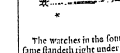
The watches north, is, when the cleareſt ſtandeth right above the North-ſtarre, as in this ſecond figure.

The watches in the weſt, that is when the middleſt of the watches ſtands to the weſt from the North-ſtarre and which the ſame even high above the Horizon, as in this third figure.

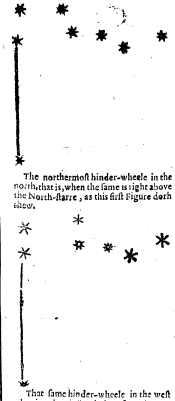
North-ſtarre.



The watches in the ſouth that is, when the cleareſt of the ſame ſtandeth right under the North-ſtarre, as in this fourth Figure.



Upon this manner, as from the watches, it alſo to underſtand the Eaſt, weſt, South, and North from the northermoſt Hinder-wheele of the great wagon, thus:



The northermoſt hinder-wheele in the north, that is, when the ſame is right above the North-ſtarre, as this firſt Figure doth ſhew.

That ſame hinder-wheele in the weſt that is, when it ſtandeth weſtward even, high, ſo as the Northſtarre above the Horizon, as in this Figure.

The northermoſt hinder-wheele of the Wagon in the eaſt, that is, when ther doth ſtand eaſtward even high above the Horizon, as the N. ſtarre, like this ſecond Figure.

That ſame Hinder-wheele of the Wagon in the South, that is when it ſtandeth right under the North-ſtarre, as in this fourth Figure.

The uſing of theſe foreſaid Tables.

Men ſtayes till that men hath the cleareſt of the Watches, or the northermoſt Hinder-wheele of the great Wagon upon ſome of the foreſaide courſes, then makes men an account of the height of the North-ſtarre above the Horizon. Out of the found height, together with the preſuming, men doth almoſt know the height of the Pole, eſpecially cloſe by, for to finde out of the foreſaid Tables how much the North-ſtarre ſtandeth higher or lower then the Pole. Is the ſame higher, men pulls it of is is lower, men putts that unto the meaſured height, and find alſo the right height of the Pole.

Theſe foreſaid Tables are onely counted from ten till ten degrees, and when a man is moſt betwixt fuch heights, ſhall men comming upon other heights take notice how many degrees he is above or under theſe counted pales, and with, one how great the difference is betwixt ſuch two, as the findes himſelf, having taken notice hereof, men takes then the difference, after the courſe of the height where a man is in, leſſe or more from the foreſaid, taking off or putting to the ſame, ſo as it comes to paſſe.

I. Example.

I deſire to know upon the height of 46 degrees, how much the North-ſtarre ſtandeth lower then the Watches in the eaſt, taking notice how great the difference is betwixt the height of 40 and 50 degrees, finde 5 minutes in creaſing; ſay therefore: 10 degrees in height give five minutes, how much then 6 degrees? Facit 3 minutes, for theſe by the 3 degree, 39 minutes, which I doe finde in the Table next the 10 degrees becauſe the difference of 40 till 50 degrees is in creaſing finde alſo 1 degree 42 minutes.

II. Example.

Upon the height of 48 degree, I deſire to know how much the North-ſtarre ſtandeth higher then the northermoſt Hinder-wheele of the Wagon in the Eaſt, the difference and Table betwixt 40 and 50 degrees height, is 40 minutes diminiſhing; ſay therefore: 10 degrees difference height, give 14 minutes, how much 8 degrees? Facit, roome 11 minutes, drawing theſe from 38 minutes, ſtanding next the 40 degrees height, becauſe the difference from 40 till 50 degrees diminiſheth, finde 27 minutes, that the Northſtarre ſtandeth to high upon the foreſaid height of 48 degrees.

Of the vapours and exhalations which the ſunne, vnon and Stars; as they are nearer the Horizon do ſeem to draw up more, as indeed and truth they are.

EXperience techeth, that the lights of heaven, by how much they are nearer the Horizon, by ſo much doe they ſeeme to be higher then indeed they are, and by reaſon of the fumes, which continuall a riſe and as they are nearer the Horizon, ſo much as they more thicker, and riſing by litle and litle, they leſſer, and at the leaſt are clean vaniſhed, and as we come nearer the Pole, the vapours do more & more increaſe, and for that cauſe doe the lights ſeeme to be higher than they are. Yea it is found about the height of 83 degrees, towards the north, that the Sunne ſeemeth to be 40 minutes higher than in troth is, this hath famous Aſtronomer Tycho Brahe, ſearch out and written in Denmarck, as you may ſee in this table.

A table of the riſing of the Sunne.

When the Sunne if duo on behight	Degrees.	Minutes.	
	0	34	
	1	26	
	2	20	
	4	11	higher
	6	3	than
	8	56	ſeemes
	10	50	
	12	45	
	14	40	
	16	36	
	18	33	
	20	31	
	22	29	
	24	27	
	26	25	
	28	24	
	30	23	
	32	22	
	34	21	

A table of the riſing of the Starres.

When the Stars are of the tight.	Degrees.	Minutes.	
	0	33	
	1	32	
	2	31	To be
	3	30	higher
	4	28	than in-
	5	27	Clered
	6	25	they are
	7	23	
	8	21	
	9	19	
	10	17	
	11	15	
	12	13	
	13	11	
	14	9	
	15	7	

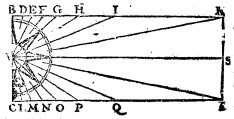
The uſe of this table will we declearе by an example and what foeveſ may be faid of the riſing of the Sun, the ſame may be faid of the ſtarres.

Example.

LEt the height of the ſun be meaſured, and found to be 7 degrees above the Horizon, and in the table of the Sunne above written; there are 13 minutes which the Sun ſeemeth to be higher than it is, therefore ſubſtract 13 minutes from the 7 degrees, there will remaine 6 degrees 47 minutes for the true height of the Sun.

But if we take the diſtance of the Sun from the Zenith according to this Example, it would be found to be 83 degrees, and then the 13 minutes added to the 83 degrees the product is 83 degrees 13 minutes for the true diſtance of the Sun from the Zenith, then if we take 83 degrees 13 minutes from 90 degrees there will remaine 6 degrees 47 minutes as before, and ſo will it be in all the other.

How many miles or leagues you muſt ſaile on every point of the compaſſe before you ſhall get a degree in breedth of the land.



WHen you ſail right South or right N. on any one point of the compaſſe, as from A to B or C, you ſaile for 2 degrees 11 leagues. And you ſay under the ſame Meridian.

On the point north and by eaſt, or ſouth and by eaſt, as from A to B or F, you ſayle for 2 degree 25 and 2 halfe leagues.

And then you are out of the Meridian whence you ſailed, as it were from B to D ——— 3 leagues
Non thwrtheaſt and ſouthſoutheaſt, as from A to E or M, for a degree ——— 16 leagues
You are from the Meridian whence you ſaile 6 leagues as from B to E.
Northeaſt and by northand S.E. and by ſouth you ſaile as from A to B or N ——— 11 leagues
You ſhall ben without the ſame line as from B to F. ——— 16 leagues
Northeaſt and ſouthealt, you ſaile for a degree as from A to G or O ——— 21 leagues
You are then of the north and ſouth line whence you ſaile as it were from B to G or C O ——— 31 leagues
Northeaſt and by eaſt and S.E. and by eaſt, as from A to H or to P for a degree ——— 27 leagues
You are then out of the firſt Meridian, as from A to H, or C P ——— 22 leagues
Eaſtnortheaſt or eaſtſouthealt, you ſaile for 2 degree as from A to I or Q ——— 39 & a halfe leag.
You ſhall be out of the Meridian, as from B to I or from C to Q. ——— 36 leagues
Eaſt and by north or eaſt and by ſouth, as it were from A to K or R you ſaile for 2 degree ——— 27 leagues and a halfe.
Then are you out of the Meridian, as from B to K. or from C to R.
Eaſt or weſt, as from A to S, you remaine between the Pole and Equinoctiall on the ſelfe ſame breadth of the earth or land.

Of the changingh of the Compaſſes.

THe needle of the ſteele neder the Compaſſe, whetted with the Saile ſtone, drawes at feverall places feverally, at ſome right to the north, at other tumes it to the eaſt, and other-wayes to the weſt. As per Example: By the Ilands of Corvo and Flores, (the weſtermoſt of the Flemmiſh Ilands.) By Helmſtuy a litle by weſt the north-Cape. About 30 leagues weſtward from the ſouth corner of Spire bergh, by eaſt the Cape de Bona Eſperance, on the Cape das Aguilhas, and at more places as, wel in the Eaſt as in Weſt Indies, ſheweth the wetted needle right north Weſtward from the Flemmiſh Ilands by eaſt the North-cape. On *Nova Sembla*, on the Coaſt of Spitsberge, and by eaſt the Cape das Aguilhas, upon the whole IndisSea ſheweth the ſame from the north to the weſtward, and by eaſt the Flemmiſh Ilands, by weſt the Gape de Bona Eſperance, and more other places from the north eaſtward. The turning off from the needle is then portned in two, to with, from the north to the weſt, which by the Dutchmen is called weſtering or north weſtering, and from the north to the eaſt, which is called eaſtering or north Eaſtering. Every one of theſe is alſo devided in two, to writ, increaſing and diminiſhing eaſtering, as alſo, increaſing and diminiſhing weſtering. Increaſing Eaſtering or weſtering, is, when a man ſailes from weſt to eaſt, increaſing and diminiſhing, which then doth diminiſh. The ſame can be more plainly underſtood by Examples, as followeth.

I. Examples.

If a man doth ſaile from the Ilands Corvo and Flores, where the needle ſheweth right eaſtward on to the coaſt of Spaine, the needle beginnes (and in time more and more) to turne off from the north to the eaſt, til a man come a litle by eaſt the Iland S. Brandaon where the ſame is upon the higheſt 22 degrees, of 2 whole ſtroakes, that is, Increaſing northweſtering. Sailing forth from thence it begins to diminiſh, til next the fouth point of Celebes, where the needle draweth right again, that is called diminiſhing northweſtering,

For

For the common Navigation from the Nether-lands upon East, North-England, til France and Spaine, are the Steeles (for to make the lilly, to shew right North) laid fait under the Roles, about 2 third parts of a ftroake, from the north to the East. The courses and distances from the one land to the other, in the common Pascardes of thefe Fare-waters, are alfo made after fuch Compaffes, fo that men with the fame can faile there unto without altering of the Compaffes, or to make any other account there-upon.

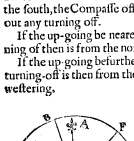
Upon farre Voiages over the great Sea, where the Needle turnes a ftroake, two, or more, now to the weft, and then to the East, it neceffary to have a good care, and marke fharpely there-upon, over what fide as how farre the fame fheweth from the north, for to be affured what courfe a man (failing) doth keepe.

For to finde the miffe-fhewing or turning off from the Needle, a man feeketh firft the right north (for to make the Needles off turning to agree therewith) upon feveral manners: Men meafureth with a Compaffe (whereoff the Needle with the lilly doth lye right over another) the Sun in the morning when fhee rifeth, and in the evening when goeth under: If both thefe meafurings fall even farre from the North to the fouth, the Compaffe off the Needle fheweth then right north, without any turning off.

If the up-going be nearer to the north then the undergoing, the turning of then is from the north to the eaft, & a man hath northeaftering.

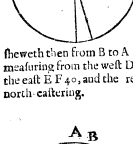
If the up-going befurther from the north then the undergoing, the turning-off is then from the north to the Weft, and a man hath northweftering.

I. Example.



Being the up-going of the Sunne on F, from E by north the eaft 4 o, that is, from A the norther 50 degrees, the under-going on G, from D by north the weft 10, that is from A the norther 80 degrees, the bow G A F, doth then 130 degrees, thefe devideding in two, on B, fuch that G B and B F every one doth 65 degrees; B is then the right North-point (in the middeft betwixt the up and under-going) fuch a Compaff fheweth then from B to A 15 degrees to the eaft. Or if from the befte meafuring from the weft D G be done 10 degrees, from the caft from the eaft E F 40, and the remaining 30 devideth in two, comes 15 B A north-eaftering.

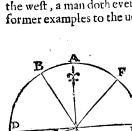
II. Example.



Let the up-going of the Sunne be on F 80 degrees, from the north to the eaft, the undergoing on G 60 degrees to the weft, the bow G A F doth then 140 degrees, thefe devideth in two on B, fuch that G B and B F, every one doth 70 degrees, B is then the right north point, 10 degrees by eaft the Lilly, the Lilly or Nedle fheweth then 10 degrees from the right north to the weft. Or if a man from the befteft meafuring drawes 10, from the moft of the weft 20, and devideth the remaining 20 in two, there comes to even on AB, the northweftering of the Neddle.

If the up-going falls by north the eaft and the undergoing by fouth the weft, a man doth even upon the fame fafhion to the fouth, as in the former examples to the north is declared.

III. Example.



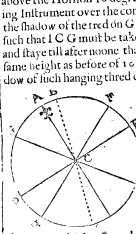
Taking F to be the up-going from E the eaft diftant 40, and from A north 50 degrees, G the undergoing, from D the weft to the fouth 16 or from the north A 106 degrees, the Bow GDA F is then 156 degrees, thefe deviding on two, as before on B, fuch that GB and B F every one doth 78 degrees, B ftall be the right northpoint 28 degrees by weft the Needle, the fame fhweth then 28 degrees from the north to the eaft. Or if a man the lefteft meafuring by fouth the weft 16, addeth with the moft meafuring by north the eaft 40, and doth devide fuch number in two, there comes 28 even on the north-eaftering of the Needle.

Out of the former Examples is enough to be underftood all other thinghs, which in the meafuring of the up and under-going of the Sunne a man might meete.

When it appe neth that a man can not fee the Sunne in the up and undergoing, through the thicknefe of the Clouds, hee may then meafure the ftme in the fore and after-noon upon one felfe-fame height, and doe as before.

VI. Example.

Foure or five houres in the fore noone the nearer the up-going the better I take with a degree bow or Aftrolabium the height of the Sunne above the Horifon 10 degrees and meafure alfo the Sunne with a fhewing Inftrument over the compaffe, or with and hanging thred, and finde the fhadow of the tred on G, 40 degrees from the north to the weft, fuch that I C G muit be taken for the fhadow, I note that per memore, and ftaye till after noone that the Sunne is gone downe againe upon the fame height as before of 10 degrees, and I looke then where the fhadow of fuch hanging thred doth fhew, the which is as I take it on F 60



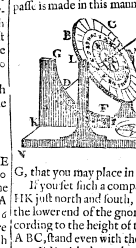
degr. from A north, fo ch that HCE portrayes the fhadow. The bow G A F 100 degrees, devided in two alike parts on B, fo that G B and BF every one doth 50 degrees, the point B is the right north point, the needle then turneth from the north of B unto A, to the weft, 10 degrees, and alfo in all other occafions.

After fuch a manner may a man in the forenoone meafure, two three, foure, or more, as by Example: The firft, when the Sunne is high, five, the fecond, eight, or ten the third, twelve, fifteen or more, and in the afternoone againe upon the like heights, then a man doth finde how the one a greeth with to other, and ftanding turneth a great deale upon the Compaffe.

Of the Tydes.

IT is knowne al experienced Mariners that the ebbing and flowing of the fea is governed by the Moone; alfo that at every new and full Moone the waters are higher, which they call fpring-tydes, and at the quarter of the Moon the waters are lower: fo that you may know and that certainly by former obfervation, (although the turne and real cauffe thereof is yet hidded from us) the houre of the tyde, and on what point or ftroke the Moone maketh high water in any particular place, to the great profit and furtherance of navigation.

To know on what ftroke the Moone is, it may be done in a two fold manner, by the fight or by marking how old the Moone is, to looke at fome ftroke of the Compaffe, may not be done according to the common Compaffe lying ftatte or driving water Compaffe, becaufe that Horizon devideth only into equall ftrokes, and fteweth in what virtical Circle or Azimuth the Sun or Moone ftandeth, but by a Compaffe that (being lifted up) according to the Superficiall part of the Equinoctiall, devideth the Equinoctiall into equall parts, as the common ftatte driving doth the Horizon, fuch an Equinoctiall compaffe is made in this manner as you fee in this figure: where the roundell



ABC fheweth the ftatte of the Equinoctiall, the gnomen E D the axeltree of the World. The foresaid roundel in B marked on both fides, in the infide with the Compaffe, and on the edge of the outfide, with twice 24 hour, and in the eaft and weft at L and M hanging on two pinnes as it were on an axeltree, fo that the fe being turned up and downe, and the gnomen fet & the nether end by D and by the Quadrant F D G, that you may place in at the height of any pole.

If you fet fuch a compaffe with the bottom water compaffe, the line HK juft north and fouth, to wit H to the north and K to the fouth, and the lower end of the gnomen by fuch a degree of the Quadrant F C, according to the height of the Pole where you are: there will the rondell A BC, ftand even with the furface of the tutne Equinoctiall, and the gnomen E D with the axeltre of the World.

The fight one fuch a Compaffe, and a common one, differeth very much, and by how much nearer the Equinoctiall fo much more will the difference be, as will appeare by this Example following.

1 Example.

On the height of 50 gr. or thereabouts, the Sunne being in the beginning of the Cancer in the greateft northerly declination it is a common Compaffe eaft at halfe and houre paft feven, and weft at halfe an houre paft foure, that is he goeth from the eaft to the weft through the fouth in nine hourer, but from the weft through the north to the eaft in 15 houres.

2 Example.

At the height of 30 degrees, he comes lit'e before halfe an houre paft nine at the eaft, and a little after halfe an houre paft two to the weft, and

it goeth in leffe then 5 houres and a halfe from the eaft through the fouth into the Weft, but from the Weft through the North to the Eaft goeth more then 12 houres.

3. Example.

The Dragonshead being in the beginning of Aries, and the Moone in the beginning of Cancer, they make 5 degr. more Declination than the Sunne, & go to the forefayd height of 30 degrees more then an houre foorer from the eaft to the weft, then the Sun, to wit, about the fpace of 4 houres, & againe from the weft to the eaft about the fpace of 2 houres. Under the line, the Sun having no Declination, ri eth in the morning the eaft, and riffing remaineth eaft until he comment to the Zenith, and paffeth rount to the Weft, and abideth fo defcending Weft, till he appeareth the Horizon and is accordingly to a ftatte driving Compaffe, one halfe of the Day eaft, and the other weft, without comming no by other ftroke, but it is not fo on fuch an Equinoctiall Compaffe. The Sunne and Moone both going alwayes in the fame diftance of time over every ftroke, to wit, from the eaft to the fouth in 6 houres, and from the south to the weft in 6 houres, and againe from the W. through the N. in like fix houres.

Example.

Under the line, the Sun being in the Equinoctiall, I fet the end of the gnomen E directly north, the other end D to the fouth at the upper edge of the Quadrant at G on O, the gnomen E D ftall lye Weft and North, like the axeltree of the world, and the roundell right in the Horizon and upright like the true Equinoctiall there. The Sun comming above the Horizon, the fhaddow of the gnomen ftall direct you to the firft houre in the eaft, for the riffing, but if hee rife beyond the edge off the roundell, and devideth that in the fame time into equall parts with the fhadow, being 45 graden above the Horizon, the fhadow of the gnomen ftall direct you to the 9 houre in the fouth, being come into the Zenith, and 3 minutes, and foure dayes after the new or full moon at fix of the clocke the fhaddow fhall fall juft on the lead at the twelfe houre in the fouth, againe 45 graden, the fhaddow fhal be at the 3 houre in the afternone in the fouthweft, but comming to the Horizon the fhaddow fhall fall on the 6 houre in the Weft.

As this is fpoken of the Sun, the fame muft be underftood of the moon in as concerneth the points or ftrokes of the Compaffe.

To reckon by the age of the Moone, we have fet in the table following under every ftroke two rankes of ciphers, the firft are the dayes of the age of the moone, or the dayes paft fince the moone was new or at the full. The fecond the houres and minutes off thofe dayes, in the which the moone comes to fucha ftroke, and makefh at the place ftanding by high water.

Example.

Eight dayes after the moon hath beene new or the full, I defire to know when the moone commeth to the fouth, or at Embden, Enckhuyfen, and fuch like places, makes high water (for there a north and a fouth moone makes full Sea) I feek under the north and fouth ftroke the 8 day in the 1 columne, and by that in the fecond 6 houres 24 minutes on that then ftall the moone come to the north and fouth at 6 houres 24 minut. and make high water in that place.

The tyde 48 minutes later every day, that is foure or five parts of an houre, then if you know at what houre the new or full moone make high water in any one place, you ftall reckon from that firft day every day 4 or 5 parts off an houre later, and fo you ftall find the juft time of high water or full fea in that place.

Example.

When the moone is new or full, then it is at Amfterdam and Rotterdam (and wherefoever a fouthweft and northeaft moone maketh full fea) high water at three of the clocke, a day after the new or full moone at three of the clocke 24 minutes, two dayes after at foure of the clocke 48 minutes, and foure dayes after the new or full moon at fix of the clocke 12 minutes.

Here follow the Table of the Water tydes.

West and by North, and East and by South.

da	ho	mi	
0	12	0	At the Iettish ilande
1	12	48	Before the Hever, Eydar, and Elye, before Emden and Delfe-ziel. Before Enckhuyfen, Horn and Enckhuyfen, and Orck, upon all the coaft of Flanders, upon the foreland. At Dover in the Iser. At Boveffer on the fand. At Hanson on the Kay. Before Scheerenburgh and the Raff of Calenker. At Oifenes. In the Conduit at Jublaer in the Road.
2	1	36	
3	2	24	
4	3	12	
5	4	0	
6	4	48	
7	5	36	
8	6	24	
9	7	12	
10	8	0	
11	8	48	
12	9	36	
13	10	24	
14	11	12	
15	12	0	

Falling off ftreames upon the fame ftroke. From the Gravelian gen to Beunen.

Weftnorthweft, and Eaftfoutheaft.

da	ho	mi	
0	1	30	Under the Holy land
1	2	18	Before the mafe and Goerce, off ftreames
2	3	6	Before the Veere,
3	3	54	At Armewe, Vpon the flat before Enckhuyfen
4	4	42	In 10 or 12 Rammekens, Before the fame ftroke
5	5	30	Wielingh. On the Scaland fide
6	6	18	coaffs. Before the Thames off.
7	7	6	London
8	7	54	Before Yarmouth
9	8	42	In Durus on the Head
10	9	30	Neare the Cincle
11	10	18	On the welter of Wight
12	11	6	without Calice and Swarre-Bank
12	11	54	Nere, In Haive
13	12	42	Falline at the land.
14	13	30	

From the Gravelian gen to Beunen.

Northweft by weft, and Southeaft by Eaft.

da	ho	mi	
0	12	45	Within the mafe
1	1	33	within the Veer
2	2	21	at Flushing
3	3	9	Neare Breffer in Sea
4	3	57	In the Chamber
5	4	45	In Chamley
6	5	33	
7	6	21	
8	7	9	
9	7	57	
10	8	48	
11	9	33	
12	10	21	
13	11	9	
14	11	57	
15	12	45	

Falling off ftreames upon the fame ftroke

From beunen to the Som. Alfo from Eftables to Beunen.

Northweft, and Southweft

da	ho	mi	
1	15		Without Fontenay
2	3		Without Blavet
3	51		Vnder Bullime
4	39		before the Vfieling
5	27		before the mafe.
6	15		
7	3		
7	51		
8	39		
9	27		
10	15		
11	3		
11	51		
12	39		
1	27		
2	15		

Falling off ftreames upon the fame ftroke. Amidft the roade. From Dunkerck to Greveling. From Scaples to Femarn from dortmont to Exmouth.

Northweft by north, and Southeaft by South.

da	ho	mi	
0	0		At Amfterdam, Rotterdam
1	1	48	Bort and Zierickfea, before
2	2	36	Newcaftle, the theefe, & Hatfe
3	3	24	poole. In Roobinshoods bay,
4	4	12	without the Flemis bankes
4	5	0	In the pas off Calice, before
5	5	48	Conquet, at pennarques gro
6	6	36	Armentiers, his Riliaets
7	7	24	portfius, the River of Burdeux
8	8	12	Oral the fouthcoaffs off Bifcay
9	9	0	ragne, Gafcoigne, Poictia, On
9	9	48	all coaffs off Bifcaye, Galiffien,
10	10	36	Portugale and Spaine, On the in
11	11	24	weft coaffs off Yreland, at Bo
12	12	12	kenes or Orkenaffe, in Hitland
13	13	0	and Fairhill.

Falling off ftreames upon the fame ftroke. From Iflond to Portland to Wight, From Wight to beach, or beveher

Northnorthweft, and Southfoutheaft

da	ho	mi	
0	12	45	between the pas of Galice and
1	1	33	the male, at Roan, in the Sorlis
2	2	21	before Bore marthews poynt
3	3	9	in Brifow and Crixdow, in
4	3	57	the forde betweene Heyfande
4	4	45	before the Rout, at S. marten.
5	5	33	before Rochel before Brouage
6	6	21	at Roan, in the River off
7	7	9	foundeaux within the channels
8	7	57	fituated on the Coaffs of Spain
9	8	45	Galiffien, the fouthfide of Ire
10	9	33	taigne, Gafcoigne, and the weft
11	10	21	coaffs of Yrelande
12	11	9	
13	11	57	
14	12	45	

Falling off ftreames upon the fame ftroke

From Rifcaffes to berghfleur, From Engelants end to Lizard

Weftfoutheaft, and Eaftnortheaft

da	ho	mi	
4	30		From Texel to the pas off Calice
5	18		bee in the fareway, before
6	6		Humber, before Flamborough S. Cuthees,
6	54		and Scherenborough Abruac.
7	42		In Famouth, in the Mouthe
8	30		te, Seven ilands, S. Pauls with
9	18		out the haven betweene gain
10	6		ley and the feven Ilfes in the
10	54		fairewater. In the Breefand
11	42		without the Foure. All South
12	30		coaffs off Yreland, as Kinfael
1	18		Corcke Ischel, warerford, and
2	6		Cape de Clare.
2	54		
3	42		
4	30		

From Orfeed to Berghfleur and Amfterdam. From Bergfleet to Stralfond. the Breefand one and in Frō Cade Cliffe to the Gallant Sattees, between London and Holmes for as Bulkam, from Sorlis to Englands end, From Start point to portlands.

West by fouth, and eaft by north,

da	ho	mi	
0	12	15	In Torbay and Dartmouth,
1	0	3	in Plymmouth and Fawycke,
2	6	51	in the Sea of Galles
3	7	39	in Famouth,
4	8	27	in Milford,
5	9	15	At Xamfey in wales.
6	10	3	before Lin in Engeland
7	10	51	againft London,
8	11	39	In all havens on the fouth coaft
9	12	27	of Irelande.
10	1	15	
11	2	3	
12	2	51	
13	3	29	
14	4	27	
15	5	15	

Falling off ftreames upon the fame ftroke From Ille bas to the Foure, From Dorfey to C. de Clare. before Cancallo and S. Malo, From Englands end to Lizard, Frō portland to Wight, Frō wight to beach, or beveher

VVeft and East

da	ho	mi	
0	6	0	before Hambourgh,
1	6	48	before bremen,
2	7	36	before Marfleep or Texel,
3	8	24	at Hull,
4	9	12	at blackney and VVels,
5	10	0	before Antwerpe,
6	10	48	Tergoew,
7	11	36	Tergoew,
8	12	24	at Concallo and S. Malo,
9	1	12	S. Pauls in the haven,
10	2	0	Without the Sorlis in the
11	2	48	channell.
12	3	36	
13	4	24	
14	5	12	
15	6	0	

Falling off ftreames upon the fame ftroke

From the Kifcaffes to berghfleur, From Englants end to Lizard

For the common Navigation from the Nether lands upon East, North-England, til France and Spaine, are the Steeles (for to make the lilly, to shew right North) laid fast under the Roses, about 2 third parts of a ftroake, from the north to the East. The courses and distances from the one land to the other, in the common Pascardes of these Fare-waters, are also made after fuch Compasses, fo that men with the same can faile there unto without altering of the Compasses, or to make any other account there-upon.

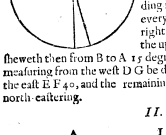
Upon farre Voiages over the great Sea, where the Needle turnes a ftroake, two, or more, now to the west, and then to the East, it necessary to have a good care, and marke sharpely there-upon, over what side as how farre the same sheweth from the north, for to be assured what course a man (sailing) doth keepe.

For to finde the misse-shewing or turning off from the Needle, a man feeketh first the right north (for to make the Needles off turning to agree therewith) upon feverall manners: Men measureth with a Compasse (whereoff the Needle with the lilly doth lye right over another) the Sun in the morning when shee riseth, and in the evening when goeth under: If both these measurings fall even farre from the North to the south, the Compasse off the Needle sheweth then right north, without any turning off.

If the up-going be nearer to the north then the undergoing, the turning of then is from the north to the east, & a man hath northeattering.

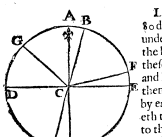
If the up-going befurther from the north then the undergoing, the turning-off is then from the north to the West, and a man hath northwestering.

I. Example.



Being the up-going of the Sunne on F, from E by north the east 40, that is, from A the norther 90 degrees, the under-going on G, from D by north the west 10, that is from A the norther 80 degrees, the bow G A F, doth then 130 degrees, these deviding in two, on B, fuch that G B and B F, every one doth 65 degrees, B is then the right North-point in the middeft betwixt the up and under-going; fuch a Compaffe sheweth then from B to A 15 degrees to the east. Or if from the leste measuring from the west D G be done 10 degrees, from the north from the east E F 40, and the remaining 30 devideth in two, comes 15 B A north-eastering.

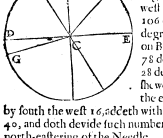
II. Example.



Let the up-going of the Sunne be on E 80 degrees, from the north to the east, the undergoing on G 60 degrees to the west, the bow G A F doth then 140 degrees, these devideth in two on B, fuch that G B and B F, every one doth 70 degrees, B is then the right north point, 10 degrees by east the Lilly, the Lilly or Nedle sheweth then 10 degrees from the right north to the west. Or if a man from the leffeft measuring draweth 10, from the moft of the west 30, and devideth the remaining 20 in two, there comes to even on AB, the northwestering of the Neddle.

If the up-going falls by north the east and the undergoing by fo th the west, a man doth even upon the same fashion to the fouth, as in the former examples to the north is declared.

III. Example.



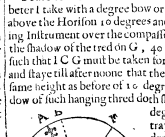
Taking F to be the up-going from E the east diftant 40, and from A north 50 degrees, G the undergoing, from D the west to the south 160 from the north A 100 degrees the Bow G D A F is then 150 degrees, these deviding on two, as before on B, fuch that G B and B F every one doth 78 degrees, B shal be the right northpoint 28 degrees by west the Needle, the same sh weth then 28 degrees from the north to the east. Or if a man the lesseft measuring by fouth the west 160, deceth with the moft measuring by north the east 40, and doth devide fuch number in two, there comes 28 even on the north-eattering of the Needle.

Out of the former Examples is enough to be understood all other thinghs, which in the measuring of the up and under-going of the Sunne a man might meete.

When it fall app neth that a man can not fee the Sunne in the up and undergeing, through the thicknesse of the Clouds, hee may then measure the same in the fore and after-noon upon one leste-fame height, and doe as before.

VI. Example.

Foure or five houres in the fore noone the nearer the sun going the better I take with a degree bow or Astrelabium the height of the Sunne above the Horifon 10 degrees and measure also the Sunne with a shewing Instrument over the compasse, or with and hanging thred, and finde the shadow of the tred on G, 40 degrees from the north to the west fuch that I C G must be taken for the shadow, I note that per memore and ftaye till after noone that the Sunne is gone downe againe upon the same height as before of 10 degrees, and I looke then where the shadow of fuch hanging thred doth shew, the which is as I take it on F 6



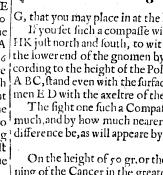
degr. from A north, fo that HCE pointrayes the shadow. The bow G A F 100 degrees, devided in two alike parts on B so that G B and B F every one doth 50 degrees, the point B is the right north point, the needle then turneth from the north to B unto A, to the west, 10 degrees, and alike in all other occasions.

After fuch a manner may a man in the forenoone measure, two three, foure, or more, as by Example: The first, when the Sunne is high, five, the second, eight, or ten the third, twelve, fifteen or more, and in the afternoone againe upon the like heights, then a man doth finde how the one a greeth with to other, and when a man alwayes findes a selfesame north point, he is then so much more assured off his perfect measuring. This is hereby to be noted: how a man doth fuch measuring further, from the midday and nearer on the upgoing and under going of the Sunne, the more certaine it is, and the more thereu-pon may be trusted, by reason, because the Sunne coming close by the midday, doth but change little in height, not withstanding turneth a great deale upon the Compasse.

Of the Tydes.

IT is knowne al experienced Mariners that the ebbing and flowing of the sea is governed by the Moone; also that at every new and full Moone the waters are higher, which they call spring-tydes, and at the quarter of the Moon the waters are loweft: so that you may know and that certainly by former observation, (although the turne and real cause thereof is yet hidded from us) the houre of the tyde, and on what point or ftroke the Moone maketh high water in any particular place, to the great profit and furtherance of navigation.

To know on what ftroke the Moone is, it may be done in a two fold manner, by the figh t or by marking how old the Moone is, to looke at some ftroke of the Compasse, may not be done according to the common Compasse lying flatte or driving water Compasse, because that Horizon divideth only into equall ftrokes, and sheweth in what virtical Circle or Azimuth the Sun or Moone ftandeth, but by a Compasse that (being litted up) according to the Superficiall part of the Equinoctiall, devideth the Equinoctiall into equall parts, as the common flatte driving doth the Horizon, fuch an Equinoctiall compaffe is made in this manner as you see in this figure: where the roundell



ABC shewth the flatte of the Equinoctial, the gnomen E D the axeltree of the World. The foresaid roundel in B marked on both sides, in the inside with the Compasse, and on the edge of the outside, with twice 24 hour, and in the east and west at L and M hanging on two pines as it were on an exeltre, so that the se being turned up and downe, and the gnomen fer & the nether end by D and by the Quadrant F D G, that you may place in at the height of any pole.

If you fet fuch a compaffe with the bottom water compaffe, the line HK just north and south, to wit H to the north and K to the south, and the lower end of the gnomen by fuch a degree of the Quadrant F C, according to the height of the Pole where you are: there will the rondell A BC, stand even with the furface of the tutne Equinoctial, and the gnomen E D with the axeltre of the Wordl.

The fight one fuch a Compasse, and a common one, differeth very much, and by how much nearer the Equinoctiall fo much more will the difference be, as will appeare by this Example following:

1 Example.

On the height of 50 gr. or thereabouts, the Sunne being in the beginning of the Cancer in the greateft northerly declination it is a common Compaffe east at halfe and houre paft seven, and west at halfe an houre paft foure, that is he goeth from the east to the west through the fouth in nine houres, but from the west through the north to the east in 19 houres.

2 Example.

At the height of 50 degrees, he comes lit'e before halfe an houre paft nine at the east, and a little after halfe an houre past two to the west, and fo is

fo it goeth in leffe then 5 houres and a halfe from the east through the South into the West, but from the West through the North to the East he goeth more then 11 houres.

3. Example.

The Dragonshead being in the beginning of Aries, and the Moone in the beginning of Cancer, they make 5 degr. more Declination than the Sun, & go to the forefayd height of 50 degrees more then an houre fooner from the east to the west, then the Sun, to wit, about the space of 4 houres, & againe from the west to the east about the space of 2 houres.

Under the line, the Sun having no Declination, riseth in the morning in the east, & nd rifing remaineth eaft untill he commeth to the Zenith, and paffeth that to the West, and abideth fo descending West, till he approacheth the Horizon and is accordingh to a flatte driving Compasse, the one halfe of the Day east, and the other west, without comming no any other ftroke, but it is not fo on fuch an Equinoctiall Compasse. The Sunne and Moone both going alwayes in the same distance of time over every ftroke, to wit, from the east to the south in 6 houres, and from the south to the west in 6 houres, and againe from the W. through the N. in twice fix houres.

Example.

Under the line, the Sun being in the Equinoctiall, I set the end of the gnomen E directly north, the other end D to the south at the upper-edge of the Quadrant at G on O, the gnomen E D shall by Warwe Comp asse, like the axeltree of the world, and the roundell right in the lead upright like the true Equinoctiall there. The Sun comming above the Horizon, the shaddow of the gnomen shall direct you to the first houre in the east, for the rising, but if hee rise beyond the edge off the roundell, and devideth that in the same time into equall parts with the shadow, being 45 graden above the Horizon, the shadow of the gnomen will direct you to the 9 houre in the south, being come into the Zenith, and the shaddow shall fall just on the lead at the twelfe houre in the south, againe 45 graden, that is descending halfe way the west, the shaddow shal be at the 3 houre in the afternone in the southwest, but comming to the Horizon the shaddow shall fall on the 6 houre in the West.

As this is spoken of the Sun, the same must be understood of the moon in as concerneth the points or ftrokes of the Compasse.

To reckon by the age of the Moone, we have fet in the table following under every ftroke two rankes of ciphers, the first are the dayes of the age of the moone, or the dayes past since the moone was new or at the full. The second the houres and minutes off those dayes, in the which the moone comes to such a ftroke, and maketh at the place standing by high water.

Example.

Eight dayes after the moon hath beene new or the full, I desire to know when the moone commeth to the south, or at Embden, Enckhuysen, and such like places, makes high water (for there a north and a south moone makes full Sea) I seek under the north and south ftroke the 8 day in the 1 columne, and by that in the second 6 houres 24 minutes on that then shall the moone come to the north and south at 6 houres 24 minut. and make high water in that place.

The tyde 48 minutes later every day, that is foure or five parts of an houre, then if you know at what houre the new or full moone make high water in any one place, you shall reckon from that first day every day 4 or 5 parts off an houre later, and so you shall find the just time of high water or full sea in that place.

Example.

When the moone is new or full, then it is at Amsterdam and Rotterdam (and wherefoever a southwelt and northeaft moone maketh full sea) high water at three of the clocke, a day after the new or full moone at three of the clocke 24 minutes, two dayes after at foure of the clocke and 36 minutes, and foure dayes after the new or full moon at fix of the clocke 12 minutes.

Here follow the Table of the Water tydes.

West and by North, and East and by South.

d	ho	mi	
0	12	0	At the Iittish Ilands
1	12	48	before the Hever, Rydar, and Falling off
2	1	36	Flye, before Emden and Delfe- streams up
3	2	24	ziel. Before Enckhuysen, Horn on the fa-
4	3	12	and Gryk, upon all the coafts the stroke.
5	4	0	off Flanders, upon the fore-
6	4	48	land. At Dover in the Iiter,
7	5	36	at Beveiier on the fand, at
8	6	24	Hanson on the bay. Before
9	7	12	Schietenburgh and the Ras off From the
10	8	0	Blanckert. Neffe to
11	8	48	at Offenes. Beumen.
12	9	36	in the Conduit
13	10	24	at Jubleter in the Road.
14	11	12	
15	12	0	

Westnorthwest, and Eastsoutheast.

d	ho	mi	
0	1	30	Under the Holy land
1	2	18	Before the male and Goeree, Falling off
2	3	6	Before the Veere, streames
3	3	54	at Arnewe, Vpon the flat be upon the
4	4	42	fore Rammekens. Before the same stro-
5	5	30	Wielinghs. On the Seiland ke
6	6	18	coafts. Before the Thames off
7	7	6	London
8	7	54	before Yarmouth
9	8	42	in Duvus on the Road From the
10	9	30	Neare the Cingle Gravelin-
11	10	18	On the welter of Wight gen to
12	11	6	without Calice and Swarte- Beunen.
13	11	55	nes. In Hlavee
14	12	42	fulline at the land.
15	13	30	

Northwest by west, and Southeast by East.

d	ho	mi	
0	12	45	Within the mase Falling off
1	1	33	within the Veer streames
2	2	21	at Flushing upon the
3	3	9	Neare Bevefier in Sea same
4	3	57	In the Chamber stroke
5	4	45	in Charnley
6	5	33	
7	6	21	
8	7	9	From beu-
9	7	57	nen to the
10	8	45	Som.
11	9	33	Also from
12	10	21	Enkhios to
13	11	9	Beunen,
14	11	57	
15	12	45	

Northwest, and Southwest

d	ho	mi	
0	1	15	Without Fontenay Falling off
1	2	3	Without Slaver streames
2	2	51	Vnder Iullune upon the
3	3	39	before the Vvieling same
4	4	27	before the male. stroke.
5	5	15	
6	6	3	Amidft
7	6	51	thmouth
8	7	39	the Heads
9	8	27	From Dun
10	9	15	kerck to
11	10	3	Greveling
12	10	51	From Sta-
13	11	39	ples to Fe-
14	12	27	cam from
15	1	15	dortmont
			to Ex-
			mouth.

Northwest by north, and Southeast by South.

d	ho	mi	
0	1	0	At Amfterdam, Rotterdam, Falling off
1	1	48	Dort and Zierickzee, before streames
2	2	36	Newcastle, the Hufe, & Hatte from Ca, upon the
3	3	24	poole. In Rotshinoods bay, de ragus same
4	4	12	without the Flemis Bankes to the Iiid stroke
5	5	0	In the pas off Calice, before off Ornay
6	5	48	Conquet, at pevmar ques gray From Cam
7	6	36	Armentiers, his Riliaets zay to Ca-
8	7	24	portes, the River of Bardeux ques, from
9	8	12	On at the southcoafts off Bri- mylford
10	9	0	ragne, Gafcoigne, Poicta, On to Ramfey
11	9	48	all coafts off Iiflcaye, Galiffen At Fawike
12	10	36	Portugal at Spaine, On the in the
13	11	24	well coafts off Yreland, at Bo- channel, at
14	12	12	kens or Orkenelle, in Hitland portlad in
15	13	0	and Fairhill. the Sack.

Northnorthwest, and Southsoutheast

d	ho	mi	
0	12	45	between the pas of Galice and Falling off
1	1	33	the male, at Roan, in the Soriis streames
2	2	21	before Sinte marthews poynt upon the
3	3	9	In Bridow and Cridow, in same stroke
4	3	57	the forde betweene Heyfandt
5	4	45	before the Hoss, at S. marten,
6	5	33	before Rochel before Brouwes
7	6	21	30, at Roan, in the River off From stru-
8	7	9	bourdeaux within the channels ken to
9	7	57	finisted on the Coafts of Spain Deepe.
10	8	45	Galiffen, the southside of Ire- From Le-
11	9	33	taigne, Gafcoigne, and the well yard to
12	10	21	coasts of Yrelande From Ca,
13	11	9	de Clare to
14	11	57	London.
15	12	45	

Westsouthwest, and Eastnortheast

d	ho	mi	
0	4	30	From Texel to the pas off Ca- Falling off
1	5	18	lice in the faseway, before streams upon
2	6	6	Humbers, before Flamborough From Oftend the same
3	6	56	and Scheerenborough Abruac. to Bergfeer, E. Catelines, stroke.
4	7	42	In Famouth, in the Mouschou- to Scrafaert
5	8	30	le, Seven Ilands, S. Pauls with- to Bardaeu
6	9	18	out the haven betweene gare ques and in
7	10	6	fley and the seven Iles in the to Calc Cla-
8	10	54	fairewater. In the Brceland re to Holland
9	11	42	without the Foure. All South Sutten, be-
10	12	30	coasts off Yreland, as Kinsal, tween Ion and Hol-
11	1	18	Corcke Forbel, waterford, and mes fo far as
12	2	6	Cape de Clare. Bridow, from
13	2	54	South to the
14	3	42	Ilands end.
15	4	30	From Scrafa-
			point to port-
			landt.

West by South, and east by north.

d	ho	mi	
0	11	15	In Torbay and Dartmouth, Falling off
1	6	3	in Plymmouth and Fawycke, streames
2	6	51	in the Sea of Galles upon the
3	7	39	in Famouth, same
4	8	27	in Milford, stroke
5	9	15	At Carmley in wales.
6	10	3	before Lin in Engeland
7	10	51	against London,
8	11	39	In all havens on the south coaft From the
9	12	27	of Irelande. Soila to
10	1	15	Lizard,
11	2	3	Frb port-
12	2	51	land to
13	3	39	VVight,
14	4	37	Frb wight
15	5	15	to beach,
			for beveser

VVest and East

d	ho	mi	
0	6	0	before Hambourgh, Falling off
1	6	48	before bremen, streames
2	7	36	before Marsdeep or Texel, upon the
3	8	24	at Hull, same
4	9	12	at blackney and VVels, stroke
5	10	0	before Antwerpe,
6	10	48	Tergoes,
7	11	36	Tergouwe,
8	12	24	at Concallo and S. Malo,
9	1	12	S. Pauls in the haven,
10	2	0	VVithout the Soslis in the
11	2	48	channell.
12	3	36	
13	4	24	
14	5	12	
15	6	0	

West and by North, and East and by South.

da	ho	mi		
0	6	45	Betweene Fawyck and Fa-	Falling off
1	7	33	mouth in the channell,	streams up
2	8	31	A middell in the channell,	on the fa-
3	9	9	At Brifhow at the Key.	me ftroke.
4	9	57	Before S. Nicolaes and Rodef-	
5	10	45	temake.	
6	11	33		
7	12	21		From the
8	1	9		Hand Bas
9	1	57		to Marwa-
10	2	45		nen along
11	3	33		land.
12	4	21		
13	5	9		
14	5	57		
15	6	45		

Weſtnorthweſt, and Eaſtſoutheaſt.

da	ho	mi		
0	7	30	At the Neſſe by VViering hen,	Falling off
1	8	18	in Fexel in the Copevcer-	ſtreames
2	9	6	ders Rode,	upon the
3	9	54	At Kilduyen,	ſame ſtro-
4	10	42	In the middle of the channell	ke
5	11	31	in the Parreway.	
6	12	18	Neare Goutſluet in the chan-	
7	1	6	nell,	From the
8	1	54	And between Monſhole and	Hand,
9	2	42	Famouth in the Sea,	Stack to
10	3	30	Neare Plymmouth in the Sea	S. Malo
11	4	18	At Lezare by the land.	Point 23½
12	5	6		fleur, to
13	5	57		Synhooft.
14	6	42		
15	7	30		

Northweſt by weſt, and Southeaſt by Eaſt.

da	ho	mi		
0	8	15	Without the Kiſcaffes in the	Falling off
1	9	3	channell.	ſtreames
2	9	51	By VVight in the channell.	upon the
3	10	39	From Wight to Beveſier by the	ſame
4	11	27	land.	ſtroke
5	12	15	Upon the VVeſtcoaſt off the	
6	1	3	Foreland,	Behinde
7	1	51	VVithout the Flye.	Garnſey
8	2	39		in the fa-
9	3	27		rewater,
10	4	15		within the
11	5	3		ſeven I-
12	5	51		land.
13	6	39		
14	7	27		
15	8	15		

Northweſt, and Southweſt

da	ho	mi		
0	9	0	Before the Eaſt and weſt Eem-	Falling off
1	9	48	ſes,	ſtreames
2	10	36	before the Flye.	upon the
3	11	24	before the Scholbaſh,	ſame
4	12	12	On all the Freeſe coaſts.	ſtroke,
5	1	0	Upon the Freeſe and VVierin-	
6	1	48	ger Plack.	
7	2	36	before Cranmer winterduyn	
8	3	24	and Yarmouth.	In the wy-
9	4	12	Within the Seyne,	ke of Be-
10	5	0	At the eaſt end of Wight,	noyre.
11	5	48	In the kaffe off Portland.	Between
12	6	36	Betweene Garnſey and the Kif-	Morlaix
13	7	24	caſtes.	and the
14	8	12		Treacle
15	9	0		pots.

Northweſt by north, and Southeaſt by ſouth.

da	ho	mi		
0	0	45	The Needles off Wight.	Falling off
1	1	33	In the channell wight.	ſtreames
2	2	21	The Kiſcaffes,	upon the
3	3	9	At Garnſey in the channell	ſame ſtroke
4	3	57	Neare Leyſtaff and Yarmouth	
5	4	45	without the banckes,	
6	5	33	At Turgouwe,	
7	6	21	At the weſts-horne.	efore
8	7	9		Concallo,
9	7	57		before the
10	8	45		Iland off
11	9	33		S. Michael
12	10	21		in the
13	11	9		Greeke.
14	11	57		
15	12	45		

Northnorthweſt, and Southſoutheaſt.

da	ho	mi		
0	10	30	At Olfenſtee and Hardwige	Falling off
1	11	18	without the banckes.	ſtream
2	12	6	At Leyſtaff in the Rode,	upon the
3	12	54	Yarmouth in the Road	ſame ſtroke
4	1	42	Before the Hames of London	
5	2	30	At Margat.	
6	3	18	At Wight within.	
7	4	6	At Queen Deepe and Seyn-	From
8	4	54	hooft.	Beggſtorn
9	5	42	In the Rode of Caen	to Alhon-
10	6	30	At Stonyfleet, and at the coaſts	ga. From
11	7	18	of Normandy and Pic-	C. Dorſt
12	8	6	cardy.	to the
13	8	54	At S. Helena and Calverooft	Hand
14	9	42		Dardan.
15	10	30		

Weſtſouthweſt, and Eaſtnortheaſt

da	ho	mi		
0	11	15	Between Crippleſand and the	Falling off
1	12	3	Ile of	ſtreames
2	12	51	VVeſtin at Oſtenſtee,	upon the
3	1	39	At Hampoon.	ſame ſtroke
4	2	27	At Poy Chinouth, and at Wel	
5	3	15	ſe Shorne.	
6	4	3	At Calverooft in wight.	
7	4	51	Before the haven of Caen	From S.
8	5	39	VVithin the Thames off Lon-	Matchews
9	6	27	don,	point into
10	7	15		Bazoven
11	8	3		from
12	8	51		Footenay
13	9	32		to S. Mat-
14	10	27		thewes
15	11	15		poynt.

How to finde the age of the Moone.

TO doe this without an Almanach, you muſt know the Epact or Key of the yeare, and that you ſhall finde by the Golden number, and the Golden number thus: looke how many yeare there are paſt from that yeare of our Lord, 1500 and thoſe devide by 19 and what remains is the Golden number of that yeare, if there remaine nothing, the Golden number is 19.

Example.

I deſire to know the Golden number of the yeare 1645, ſetting the 1500 a ſide, I devide the 145 yeares wit 19, I find ſeven times, and the remainder is 12. Then the Golden number of the yeare 1645 is 12.

Golden Nomber.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
New Epact.		12	23	4	15	26	7	18	29	10	21	2	13	24	5	16	27	8	19
Old Epact.		11	22	3	14	25	6	17	28	9	20	1	12	23	4	15	26	7	18

The Epact being knowne, you ſhall adde it to the number of the moneths that are paſt from March to the moneth you are in, the ſame moneth being reckoned with it, if this brings forth 30, then it is new moon the firſt day of the ſame moneth, but as much as it is leſſe then 30 ſo many dayes you have to the new moone.

Example.

In the yeare 1641, I deſire to know when the moone ſhall be new in the moneth Auguſt, the Epact of that is 18, adding to this 6 for the number of the moneths ſince March (the moneth of Auguſt being included) it makes 24, there want 6 to make it 30, therefore, the moone ſhall be now 6 dayes at this, that is the 6 of Auguſt.

The Epact, the number of the moneth paſt from March and the day of the moneth being added, ſuch a number, (or what ſoever it brings forth, more then 30) it ſheweth the age of the moone.

I. Example.

To knew the age of the moon on the 12 of Auguſt 1645. I adde the Epact 2 to 6, the months paſt, & 12 for the 12 dayes, they make this 20, is the age of the moone, but this is to be underſtood after the new tide.

To finde out caſily without caſting up the time the new moon, we have here 2 joyned an Almanach for 10 yeares next enſuing, calculated by the meridian of Amſterdam, ſhewing the day and houre of every new and full moone, together with the quarters, the uſe of it is thus: by the moone in every mooneth there are two columnes of ciphers, the firſt ſheweth the day of the moneth, the ſecond the houres and minutes of and full moone, to reckon from the noone of the ſame day following, to the uſe and cuſtome of Aſtronomers.

Example.

I would know in the yeare 1625, in the moneth of July, on what day and houre the moone will be new, and I finde the new moone, on the 5 day, 1 houres, 31 min. telling from noone tyde, and this runne to the next day in the morning at 6 of the clock.

To know what day of the weeke that will bee, you muſt firſt know the Dominicall letter of that yeare, and with what letter each moneth beginneth, the Sundayes letter you ſhall find under the Almanach off each, the leap-yeare hath two, the firſt you ſhall uſe to the 24 of February, the other to the end of the yeare, every moneth beginneth with ſuch a letter as this table following ſheweth.

January	A/April	G
February	D/May	B
March	D/June	E
July	G/October	A
Auguſt.	C/November	C
September	F/December	E

For as much as July beginneth with a G you ſhall begin to tell at ground

ground to 5, and that fall out in B, that is the third day after B, the Dominicall letter of that yeare, and ſo it will bee wednesday, and ſo in all the other. In the Leape yeare you muſt tell both the 24 and 25 on F, becauſe the 25 day and 24 were added on F.

Of the CARDE.

IT is knowne to every man, eſpecially to thoſe that underſtand the grounds of Cosmographie, that the earth with the waters make one complete round body, and therefore it can not be, that you ſhould ſet forth the ſame perfectly in a plane or Carde, either in the hole or in part, but there will be ſome want, for it is unpoſſible to make a plaine agree with a round forme in all the parts thereof. So that your common cardes many times fayle in truth, eſpecially thoſe that comprehend great and long voyages by Sea, and far from the Equinoctiall, but the Maps which are commonly uſed in this Countrey, of the Eaſterly and Weſterly Navigation, are without fault, or at leaſt the errors are ſo little that they hinder not.

They are very fit inſtruments to be uſed at ſea, and our forefathers, which have invented them, have brought no ſmall profit and utility to Mariners. The fault of them conſiſt in this, and thus it may be eaſie: If you would take a Triangle, that the firſt ſides will bee failed on their ſtrokes, and diſtances, but from the 2 to the 3 place that is the 3 ſide of the Triangle it will fayle both on the ſtrokes and diſtances.

Example.

I ſaile from the Lizard a ſtraight courſe to the Ilands of Canary, and from hence againe to the Ilands of Corvo and Flores, on which foreſaid ſtrocks, and diſtances many Maps, are very complete and perfect. But if I would faile againe from Corvo to the Lizard, from whence I firſt ſailed, the Card will ſhew me an imperfect way, to wit, it will ſeeme farther wide in the Card, then indeed it is, alſo it will differ on the points of the Compaſſe: ſo that you muſt direct your courſe more northerly then that why h your Card directeth.

In ſo ſhort a yourney, as this above ſayd, it is not much obſerved, neither it is worth the obſervation: but thoſe that fail to the Weſt-Indies, that ſoone perceive it, when they fet fayle, they take their courſe far to the ſouth, and there they finde their Cards of a ſit length becauſe the Cards are fitted to it. But in their returne, when they take their courſe northward, they finde the way much ſhorter then their Cardes ſhew them.

This is the cauſe: All the Lines in the Card from north and ſouth are drawne every where at an equall diſtance each from other, from the Equinoctiall to the Pole, but on a globe which is made round like the earth, they are not of an equall diſtance, but the more northerly they come, ſo much the neater they come each to other. So that two ſtrokes from north to ſouth at the latitude of 60 degrees, are but halfe ſo wide from one another, as they are at the Equinoctiall, and at the Pole they ſeem of us in the evening at 8 houres 41 minutes, the 8 of the moone, the 8 of November in the morning 7 houres 22 minutes, the off the ſun fall both under our Horizon the 1 will be ſeen in the ſoutherly parts off America as in Peru, the other falleth on the eaſt off our Horizon will be ſeene in India and Perſia and that extra Gangem.

The Golden number increaſeth every yeare with the beginning off the yeare with one, as in the yeare 1640, it is 8, 1641 it is 9, and ſo forth to 19, after that againe 1, 2, 3, &c. The Epact changeth every yeare on the firſt of March increaſing with 11 to 30, but being more then 30, you muſt leave that 30 and the remainder is the Epact. You ſhall finde it by the Golden number on the 3 joynts of your thumme, beginning with one at the lower joynts, unto the Golden number of your yeare propoſed, doth end this kind of telling at the lower joynt, and then the Epact and the Golden number are all one: but if it end on the ſecond joynt, adde 10, if on the third joynt, adde 20 by the ſame Golden number, that number is the Epact of that yeare.

Example.

I deſire to know the Epact of the yeare 1645, the Golden number is 12, telling it on the joynts of the thumme, beginning with one at the lower joynt, the telling endeth with 12 on the higheſt joynt, adding 20 to 12, you ſhall have 32 ſubſtract 30, there remaines 2 for the Epact off that yeare.

After the old ſtile, the Golden number is the ſelfeſame with the new ſtile, but the Epact is 10 more, therefore if you adde 10 to the Epact of the new ſtile, you ſhall have the Epact of the old ſtile, as for the yeare 1645, 10 to 12, (the Epact of the new ſtile) comes 22, this is the Epact of that yeare according to the old ſtile.

But find the Epact without telling, is the Golden number to know but according to the old and new ſtile, looke on this Table following, where they are ſet the one by the other.

	A	
	G	B
F		C
	E	D

	moone.	da	ho	mi
January.	laſt quart.	5	0	22
	new moon	12	12	25
	firſt quart.	20	8	30
	full moon	27	1	20
February.	laſt quart	3	20	12
	new moon	11	2	48
	firſt quart.	19	5	40
	full moon	26	13	39
March.	laſt quart.	5	1	30
	new moon	12	19	6
	firſt quart	20	21	52
	full moon	27	21	14
April.	laſt quart.	4	5	36
	new moon	11	11	53
	firſt quart.	19	13	20
	full moon	26	7	8
May.	laſt quart.	3	2	20
	new moon	11	4	12
	firſt quart.	19	0	3
	full moon	25	15	0
June.	laſt quart.	1	15	31
	new moon	9	19	20
	firſt quart.	17	7	10
	full moon	23	21	34
July.	laſt quart.	1	0	27
	new moon	9	8	44
	firſt quart.	16	24	0
	full moon	23	7	52
	laſt quart	30	23	34
Auguſt.	new moon	7	20	18
	firſt quart.	15	17	14
	full moon	21	18	26
	laſt quart.	29	17	16
September.	new moon	6	6	32
	firſt quart	14	12	36
	full moon	20	7	50
	laſt quart	28	12	0
October.	new moon	5	18	48
	firſt quart	14	8	15
	full moon	20	0	10
	laſt quart	28	4	41
November.	new moon	4	2	1
	firſt quart	12	19	0
	full moon	18	16	30
	laſt quart	22	23	24
December.	new moon	3	11	21
	firſt quart	12	3	0
	full moon	18	1	34
	laſt quart	26	7	12

The Golden num. off this yeare is 16 the Epact 16 Romans Indiction 2 Sunday letter C, the afterwinter 7 weeks 1 day, Quadragel. the 21 of Februar, Eſtherday the 28 of April, Aſcenſion the 6 day Whit-ſunday the 25 of May, Advent, the 28 of Novemb. there will be 5 Eclipſis, 2 off the moon, 3 of the Sun, both of the moon, and the middle of the Sun ſhall be ſeen in our Horizon the 5 of the moon 29 May, 3 hours, and 36 min. the 1 of the Sun 9 June, at the 19 hou. 57 min. the 5 of the Sun the 4 of Nov. 3 hou. 9 min. and ſhall be ſeen of us the 4 will bee of the moon the 19 of Nov. 7 hou. 34 minche. 3 of the Sun 4 Decemb. 12 hou. 35 min. and it ſhew it ſelfe theil, ly parts off the world, under our Horizon.

	moone.	da	ho	mi
January.	new moon	1	23	0
	firſt quart.	9	4	6
	full moon	17	8	56
	laſt quart	24	17	6
February.	new moon	31	11	12
	firſt quart	8	0	58
	full moon	16	0	8
	laſt quart	23	1	15
March.	new moon	2	23	58
	firſt quart	9	22	9
	full moon	17	12	40
	laſt quart	24	8	28
April.	new moon	1	13	50
	firſt quart	8	17	41
	full moon	15	23	52
	laſt quart	20	15	10
May.	new moon	30	5	0
	firſt quart	8	9	0
	full moon	15	8	15
	laſt quart	22	23	24
June.	new moon	29	20	33
	firſt quart	7	21	31
	full moon	13	22	12
	laſt quart	20	9	42
July.	new moon	28	11	50
	firſt quart	6	7	0
	full moon	12	22	22
	laſt quart	19	21	20
Auguſt.	new moon	27	3	40
	firſt quart.	4	14	33
	full moon	11	6	42
	laſt quart	18	14	16
September.	new moon	26	18	0
	firſt quart.	2	20	56
	full moon	9	15	58
	laſt quart	17	8	37
October.	new moon	25	21	49
	firſt quart.	2	3	0
	full moon	2	3	0
	laſt quart	17	2	20
November.	new moon	24	16	5
	firſt quart.	1	10	0
	full moon	7	23	43
	laſt quart	15	17	2
December.	new moon	23	13	43
	firſt quart.	1	4	7
	full moon	7	19	28
	laſt quart	14	23	43
	new moon	23	4	7
	firſt quart.	30	21	0
	full moon	7	13	40
	laſt quart.	13	17	26
	new moon	22	22	44
	firſt quart.	29	18	4

The Golden number is 17, the Epact 27, the Romane Indiction 3, the Sunday letter B, the after-winter 9 weeks, 1 daye, Quadragel. the 6 March, Eaſter the 17 off April, Aſcenſion the 26 May, Whit-ſunday the 5 off June Advent the 27 November, 4 Eclipſes, 2 off the Sun, 2 off the moone, which may be both off them ſeen off us in the evening at 8 houres 41 minutes, the 8 of November in the morning 7 houres 22 minutes, the off the ſun fall both under our Horizon the 1 will be ſeen in the ſoutherly parts off America as in Peru, the other falleth on the eaſt off our Horizon will be ſeene in India and Perſia and that extra Gangem.

	moone.	da	ho	mi
January.	full moon	6	9	14
	laſt quart.	14	8	34
	new moon	21	1	24
	firſt quart.	27	23	40
February.	full moon	5	4	16
	laſt quart.	12	20	29
	new moon	19	14	16
	firſt quart.	26	18	0
March.	full moon	6	21	12
	laſt quart.	14	5	6
	new moon	20	22	35
	firſt quart.	28	11	18
April.	full moon	5	13	27
	laſt quart.	12	11	33
	new moon	19	10	22
	firſt quart.	27	4	0
May.	full moon	4	23	23
	laſt quart.	11	17	2
	new moon	18	23	1
	firſt quart.	27	1	14
June.	full moon	3	8	12
	laſt quart.	9	23	8
	new moon	17	12	56
	firſt quart.	25	16	50

	moon	da	ho	mi
July.	full moon	3	1	8
	laſt quart	9	6	34
	new moon	17	3	22
	firſt quart	25	1	43
Auguſt.	full moon	1	22	16
	laſt quart.	7	17	9
	new moon	15	19	40
	firſt quart.	23	15	0
September.	full moon	30	5	50
	laſt quart.	6	6	42
	new moon	23	23	5
	firſt quart.	28	21	18
October.	full moon	29	14	31
	laſt quart.	5	23	43
	new moon	14	2	3
	firſt quart.	22	8	0
November.	full moon	28	2	19
	laſt quart.	4	9	40
	new moon	12	9	16
	firſt quart.	19	11	16
December.	full moon	27	16	30
	laſt quart.	3	17	7
	new moon	12	5	58
	firſt quart.	18	22	22
	full moon	26	9	3

The Golden number is 18, the Epact 8, the Romane Indiction 4, Sunday letter A, the after-Winter 8 weeeks, Lent the 26 Febr, Eaſter the 9 off April, Aſcenſion the 18 off May, Whit-ſunday the 28 off May, Advent the 3 off December 2 Eclipſes off the Sun, but neither of both ſhall be ſeen in our Hemiſphere 1 ſhall be the 19 off April, 10 houres 41 minutes, and ſhall be ſeen in California, and in the weſtſone Sea about the Tropick off Cancer, the 2 of the Sun the 14 of October, 2 houres 3 minut, it will be ſeen in ſome places of Africa about Cabo Verde, in Braſilia, and in the ſouth parts off America in Peru, that off the moon ſhall be ſeene off none, the darkening being little.

Almanach for the yeare 1652. New-stile.

	moon.	da.	ho.	mi.
January.	last quart.	3	3	59
	new moon	10	17	13
	first quart.	17	9	5
	full moon	25	3	51
February.	last quart.	2	7	38
	new moon	9	13	32
	first quart.	15	21	37
	full moon	23	22	24
March.	last quart.	2	21	18
	new moon	9	13	18
	first quart.	16	11	13
	full moon	24	10	19
April.	last quart.	1	7	13
	new moon	7	23	58
	first quart.	15	6	25
	full moon	23	7	59
May.	last quart.	1	11	9
	new moon	7	6	17
	first quart.	14	22	52
	full moon	22	16	32
June.	last quart.	1	19	28
	new moon	5	15	31
	first quart.	13	11	47
	full moon	21	0	30
July.	last quart.	28	0	39
	new moon	5	0	10
	first quart.	13	8	42
	full moon	20	15	8
August.	last quart.	27	6	56
	new moon	3	19	35
	first quart.	12	0	9
	full moon	19	22	09
Septe.	last quart.	25	14	52
	new moon	1	10	50
	first quart.	10	13	10
	full moon	17	22	0
	last quart.	24	1	48
Octob.	new moon	2	6	16
	first quart.	10	4	15
	full moon	16	1	16
	last quart.	23	16	02
Nove.	new moon	31	22	5
	first quart.	8	9	0
	full moon	15	2	21
	last quart.	22	12	1
Dec.	new moon	0	1	39
	first quart.	7	18	14
	full moon	14	11	7
	last quart.	21	9	51
	new moon	30	5	36

Almanach for the yeare 1653. New stile.

	moon	da.	ho.	mi.
January.	first quart	0	3	2
	full moon	13	5	11
	last quart.	21	8	1
	new moon	28	13	37
February.	first quart.	4	14	44
	full moon	11	22	22
	last quart.	20	3	33
	new moon	27	1	39
March.	first quart.	5	21	15
	full moon	13	16	23
	last quart.	21	19	21
	new moon	28	15	5
April.	first quart.	4	4	22
	full moon	12	9	50
	last quart.	20	7	9
	new moon	27	2	23
May.	first quart.	3	21	23
	full moon	12	1	43
	last quart.	19	19	59
	new moon	26	7	4
June.	first quart.	2	12	40
	full moon	10	15	32
	last quart.	17	22	4
	new moon	25	15	22
July.	first quart.	2	5	43
	full moon	10	3	19
	last quart.	17	3	4
	new moon	24	22	5
August.	first quart.	1	2	23
	full moon	8	13	43
	last quart.	15	11	20
	new moon	22	23	5
Septe.	first quart.	0	20	10
	full moon	7	0	49
	last quart.	14	0	40
	new moon	21	0	58
Octob.	first quart.	0	12	36
	full moon	6	9	56
	last quart.	13	9	55
	new moon	20	11	36
Nove.	first quart.	6	0	24
	full moon	13	0	54
	last quart.	19	14	6
	new moon	27	5	30
Dec.	first quart.	5	22	55

Almanach for the yeare 1654. New stile.

	moon	da.	ho.	mi.
January.	full moon	2	21	31
	last quart.	10	2	10
	new moon	17	4	0
	first quart.	25	7	40
February.	full moon	1	9	14
	last quart.	9	0	17
	new moon	16	18	40
	first quart.	23	15	13
March.	full moon	3	18	40
	last quart.	10	10	30
	new moon	18	0	20
	first quart.	25	12	16
April.	full moon	1	10	20
	last quart.	9	14	16
	new moon	16	15	45
	first quart.	23	7	0
May.	full moon	1	1	52
	last quart.	9	4	52
	new moon	15	23	44
	first quart.	22	17	8
June.	full moon	30	17	36
	last quart.	7	15	25
	new moon	14	9	21
	first quart.	21	22	42
July.	full moon	29	8	5
	last quart.	6	23	27
	new moon	13	19	50
	first quart.	21	12	20
August.	full moon	28	0	19
	last quart.	5	9	7
	new moon	12	3	40
	first quart.	19	3	42
Septe.	full moon	26	15	56
	last quart.	3	20	38
	new moon	10	11	36
	first quart.	17	19	55
Octob.	full moon	26	3	19
	last quart.	3	6	24
	new moon	10	11	4
	first quart.	17	5	30
Nove.	full moon	24	15	51
	last quart.	1	17	59
	new moon	9	0	58
	first quart.	16	0	0
Dec.	full moon	24	0	0
	last quart.	1	0	0
	new moon	8	0	0
	first quart.	15	0	0
	full moon	23	0	0
	last quart.	30	0	0

Almanach for the yeare 1655. New stile.

	moon	da.	ho.	mi.
January.	new moon	7	5	16
	first quart.	14	23	53
	full moon	21	10	12
	last quart.	28	22	31
February.	new moon	6	0	06
	first quart.	13	19	11
	full moon	20	3	5
	last quart.	27	10	2
March.	new moon	7	10	5
	first quart.	14	17	5
	full moon	21	10	1
	last quart.	28	12	16
April.	new moon	6	5	39
	first quart.	13	1	20
	full moon	20	5	1
	last quart.	27	4	32
May.	new moon	5	16	0
	first quart.	12	8	4
	full moon	19	19	5
	last quart.	27	21	22
June.	new moon	6	3	44
	first quart.	13	2	0
	full moon	21	4	30
	last quart.	28	22	31
July.	new moon	5	16	49
	first quart.	12	13	50
	full moon	20	20	29
	last quart.	28	11	49
August.	new moon	4	5	57
	first quart.	11	7	57
	full moon	19	5	10
	last quart.	26	23	40
Septe.	new moon	3	0	48
	first quart.	9	23	20
	full moon	17	13	50
	last quart.	25	9	9
Octob.	new moon	2	15	36
	first quart.	9	9	54
	full moon	17	0	0
	last quart.	24	0	0
Nove.	new moon	1	0	0
	first quart.	8	0	0
	full moon	16	0	0
	last quart.	23	0	0
Dec.	new moon	30	0	0
	first quart.	7	0	0
	full moon	15	0	0
	last quart.	22	0	0
	new moon	29	0	0

Almanach for the yeare 1656. New stile.

	Moon	da.	ho.	mi.
January.	first quart.	4	15	0
	full moon	11	8	49
	last quart.	18	5	17
	new moon	26	1	0
February.	first quart.	3	2	0
	full moon	9	22	22
	last quart.	16	13	50
	new moon	24	19	49
March.	first quart	3	13	38
	full moon	10	9	55
	last quart.	16	23	14
	new moon	25	11	37
April.	first quart.	3	22	19
	full moon	9	0	0
	last quart.	15	0	0
	new moon	24	0	0
May.	first quart.	3	0	0
	full moon	9	0	0
	last quart.	15	0	0
	new moon	24	0	0
June.	first quart.	1	0	0
	full moon	8	0	0
	last quart.	14	0	0
	new moon	23	0	0
July.	first quart.	1	0	0
	full moon	8	0	0
	last quart.	14	0	0
	new moon	23	0	0
August.	first quart.	0	0	0
	full moon	7	0	0
	last quart.	13	0	0
	new moon	22	0	0
Septe.	first quart.	0	0	0
	full moon	6	0	0
	last quart.	12	0	0
	new moon	21	0	0
Octob.	first quart.	0	0	0
	full moon	6	0	0
	last quart.	12	0	0
	new moon	21	0	0
Nove.	first quart.	0	0	0
	full moon	5	0	0
	last quart.	11	0	0
	new moon	20	0	0
Dec.	first quart.	0	0	0
	full moon	5	0	0
	last quart.	11	0	0
	new moon	20	0	0

Almanach for the yeare 1657. New stile.

	Moon	da.	ho.	mi.
January.	last quart.	0	15	0
	new moon	8	14	0
	first quart.	15	0	0
	full moon	22	0	0
	last quart.	29	0	0
February.	new moon	7	0	0
	first quart.	13	0	0
	full moon	20	0	0
	last quart.	27	0	0
March.	new moon	7	0	0
	first quart.	13	0	0
	full moon	20	0	0
	last quart.	27	0	0
April.	new moon	5	0	0
	first quart.	12	0	0
	full moon	19	0	0
	last quart.	26	0	0
May.	new moon	5	0	0
	first quart.	12	0	0
	full moon	19	0	0
	last quart.	26	0	0
June.	new moon	4	0	0
	first quart.	11	0	0
	full moon	18	0	0
	last quart.	25	0	0
July.	new moon	3	0	0
	first quart.	10	0	0
	full moon	17	0	0
	last quart.	24	0	0
August.	new moon	2	0	0
	first quart.	9	0	0
	full moon	16	0	0
	last quart.	23	0	0
Septe.	new moon	1	0	0
	first quart.	8	0	0
	full moon	15	0	0
	last quart.	22	0	0
Octob.	new moon	1	0	0
	first quart.	8	0	0
	full moon	15	0	0
	last quart.	22	0	0
Nove.	new moon	30	0	0
	first quart.	7	0	0
	full moon	14	0	0
	last quart.	21	0	0
Dec.	new moon	30	0	0
	first quart.	7	0	0
	full moon	14	0	0
	last quart.	21	0	0
	new moon	29	0	0

The Golden number off this yeare is 19 the Epact 19 Roman Indition 5 Sundayletters G afterwinter five weekes 4 dayes. Quadragel. weeke 6 dayes. Quadragel. the 18 February. Easter the 2 of March. Ascention the 23 of May. Whitsunday the 2 of June. Advent the 30 of November. There shall be 4 Eclipses this yeare 2 in the Sunne and 2 in the Moone; the full in the moone the 15 March, in the morning at 3 a clocke, 42 minutes, the second in the moone the 17 of September, at moone, at 7 2 clocke, 9 minutes. The first in the Sunne the 8 of April, in the morning at 10 a clocke the second in the Sunne the 2 October in the evening at 5 a clocke, but shall not be seene in these Countreyes.

The Golden number off this yeare is 1. the Epact. 1. the Roman Indition 6 Sunnedayes-letters A afterwinter 8 weekes, 4 dayes; Quadragel. weeke 6 dayes. Easter the 10 of March Easter the 26 of April. Ascention the 22 off May, Whitsunday the 1 off June, Advent the 30 off November. There shall be 4 Eclipses this yeare 2 in the Sunne and 2 in the Moone; the first in the Moone the 14 off March, in the morning at 2 a clocke, 54 minutes, the second in the moone the 17 of September, at moone, at 11 2 clocke, 41 minutes; the first in the Sunne the 8 off April, on the other side of the Earth, without our Horizon.

The Golden number off this yeare is 12 the Epact 12 Roman Indition 7. Sundayes-letters D, afterwinter 7 weekes 3 dayes. Quadragel. the 22 off Febr. Easter the 14 April. Ascenti. the 14 May. Whitsunday the 24 of May. Advent the 29 Novem. There shall be 4 Eclipses this yeare, 2 in the Sunne and 2 in the moone; the 5 in Sunne the 17 off Febr. in the morning about 7 2 clocke without our Horizon; the second in the moone, the third in the moone the 3 of March in the morning almost 2 clocke, shall somewhat be seene off us, the third in the Sunne, the 12 off Aug. in the morning about 2 clocke, as the fourth in the moone the 27 off Augustus in the evening at eleven 2 clock, shall both be seene by us.

The Golden Number off this yeare is 23 the Epact 23 Roman Indition 8. Sundayes-letter C. Afterwinter 6 weekes. Quadragesimo. the 5 off March. Easter the 26 April. Ascention the 6 off May. Whitsunday the 16 of June. Advendt the 28 November. There shall be 6 Eclipses this yeare, 2 in the Sunne and 2 in the moone, the first in the Sunne shall be seene off us the 6 of Feb. about one 2 clocke in the afternoon; the second in the moone, and the third in the Sunne (we shall without our Horizon; the fourth in the moone shall scarce be seene off any body, because the darckneslie will be very little.

The Gol'en Number off this yeare is 4, the Epact 4, Roman Indition 9. Sundayesletters BA. afterwinter 9 weeks, one day, Quadrag. the 5 off March. Easter the 16 April. Ascention the 14 off May, Whitsunday the 4 of June. Advendt the 3 off December. This yeare 8 Eclipses, 3 in the Moone and 2 in the Sun the first in the moone the 11 of Ianuary in the evening at 8 a clock, 49 minut. the second in the Sun the 26 off Ianua. at 8 a clock in the afternoon, we shall (see them both; the third in the moon the 6 off July; the fourth in the Sun the 21 off July, and the fifth in the moon the 31 Decemb. All three without our Horizon.

The Golden Number off this year is 5 the Epact 15 Roman indition ten Sunday letters E. afterwinter 6 weeks 6 dayes Quadragesi. the 18 Febr. Easter day the 1 April, Ascention day the 20 May, Whitsunday the 30 May, Advent, the 2 December. Eclipses 4 shall be this yeare, 2 in the Sunne and 2 in the moone, the 2 on the Sunne shall not be seene off us, but the 2 in the Moone doe shew themselves above the Horizon; the first upon the 28 of June, the second the evening at 9 a clock, and the second the 20 December, in the evening at 7 a clocke.

Almanach for the yeare 1658. New stile.

	moon.	da.	ho.	mi.
January.	new moon	3	9	15
	first quart.	11	1	15
	full moon	18	22	14
	last quart.	25	21	21
February.	new moon	1	22	13
	first quart.	8	7	40
	full moon	16	9	23
	last quart.	24	5	49
March.	new moon	3	16	39
	first quart.	10	14	19
	full moon	18	22	30
	last quart.	24	14	20
April.	new moon	2	0	48
	first quart.	9	20	11
	full moon	17	3	47
	last quart.	24	15	54
May.	new moon	1	23	31
	first quart.	9	2	27
	full moon	16	10	16
	last quart.	23	23	40
June.	new moon	31	7	46
	first quart.	7	8	30
	full moon	15	0	49
	last quart.	22	6	50
July.	new moon	30	15	5
	first quart.	7	14	1
	full moon	14	9	12
	last quart.	21	17	59
August.	new moon	29	17	36
	first quart.	6	0	20
	full moon	13	0	0
	last quart.	20	0	0
Septe.	new moon	28	0	0
	first quart.	5	0	0
	full moon	12	0	0
	last quart.	19	0	0
Octob.	new moon	28	0	0
	first quart.	5	0	0
	full moon	12	0	0
	last quart.	19	0	0
Nove.	new moon	27	0	0
	first quart.	4	0	0
	full moon	11	0	0
	last quart.	18	0	0
Dec.	new moon	27	0	0
	first quart.	4	0	0
	full moon	11	0	0
	last quart.	18	0	0
	new moon	27	0	0

Almanach for the yeare 1659 New stile.

	moon.	da.	ho.	mi.
January.	full moon	8	22	23
	last quart.	15	18	33
	new moon	22	8	51
	first quart.	29	16	11
February.	full moon	6	20	40
	last quart.	13	1	57
	new moon	20	21	5
	first quart.	28	15	20
March.	full moon	8	11	20
	last quart.	15	8	22
	new moon	22	9	17
	first quart.	29	11	45
April.	full moon	7	0	52
	last quart.	14	11	30
	new moon	21	1	8
	first quart.	28	5	51
May.	full moon	6	13	20
	last quart.	13	16	11
	new moon	21	1	8
	first quart.	28	0	0
June.	full moon	6	7	0
	last quart.	12	23	23
	new moon	20	0	0
	first quart.	27	0	0
July.	full moon	5	0	0
	last quart.	12	0	0
	new moon	19	0	0
	first quart.	26	0	0
August.	full moon	3	0	0
	last quart.	10	0	0
	new moon	18	0	0
	first quart.	25	0	0
Septe.	full moon	2	0	0
	last quart.	9	0	0
	new moon	17	0	0
	first quart.	24	0	0
Octob.	full moon	2	0	0
	last quart.	9	0	0
	new moon	17	0	0
	first quart.	24	0	0
Nove.	full moon	1	0	0
	last quart.	8	0	0
	new moon	16	0	0
	first quart.	23	0	0
Dec.	full moon	1	0	0
	last quart.	8	0	0
	new moon	16	0	0
	first quart.	23	0	0
	full moon	31	0	0

Almanach for the yeare 1660. New stile.

	moon.	da.	ho.	mi.
January.	last quart.	7	17	28
	new moon	14	13	21
	first quart.	21	13	4
	full moon	29	2	5
February.	last quart.	6	12	46
	new moon	13	0	40
	first quart.	20	12	46
	full moon	27	12	13
March.	last quart.	6	12	1
	new moon	14	12	20
	first quart.	21	20	26
	full moon	29	5	20
April.	last quart.	5	5	51
	new moon	12	20	22
	first quart.	20	5	42
	full moon	28	0	0
May.	last quart.	4	23	31
	new moon	12	0	0
	first quart.	19	0	0
	full moon	27	0	0
June.	last quart.	3	0	0
	new moon	10	0	0
	first quart.	17	0	0
	full moon	25	0	0
July.	last quart.	3	0	0
	new moon	9	0	0
	first quart.	17	0	0
	full moon	25	0	0
August.	last quart.	2	0	0
	new moon	8	0	0
	first quart.	16	0	0
	full moon	24	0	0
Septe.	last quart.	1	0	0
	new moon	7	0	0
	first quart.	15	0	0
	full moon	23	0	0
Octob.	last quart.	1	0	0
	new moon	7	0	0
	first quart.	15	0	0
	full moon	23	0	0
Nove.	last quart.	1	0	0
	new moon	6	0	0
	first quart.	14	0	0
	full moon	22	0	0
Dec.	last quart.	1	0	0
	new moon	6	0	0
	first quart.	14	0	0
	full moon	22	0	0
	last quart.	30	0	0

Almanach for the yeare 1661. New-stile.

	Moon.	da.	ho.	mi.
January.	last quart	2	17	46
	new moon	10	14	19
	first quart	17	11	47
	full moon	24	13	18
February.	last quart	1	1	48
	new moon	9	3	37
	first quart	15	19	28
	full moon	23	6	51
March.	last quart	3	10	12
	new moon	10	14	6
	first quart	17	6	49
	full moon	24	23	59
April.	last quart	2	2	40
	new moon	8	23	1
	first quart	15	15	52
	full moon	23	10	41
May.	last quart	1	13	58
	new moon	8	15	32
	first quart	26	4	46
	full moon	3	3	39
June.	last quart	10	3	35
	new moon	17	1	28
	first quart	24	21	47
	full moon	2	13	58
July.	last quart	9	7	39
	new moon	16	14	6
	first quart	24	14	5
	full moon	0	22	54
August.	last quart	7	12	56
	new moon	15	2	44
	first quart	23	6	12
	full moon	0	7	1
Septe.	last quart	5	23	52
	new moon	13	18	19
	first quart	21	20	44
	full moon	28	15	12
Octob.	last quart	5	9	42
	new moon	13	11	37
	first quart	21	9	22
	full moon	28	0	18
Nove.	last quart	4	1	41
	new moon	12	5	30
	first quart	19	19	40
	full moon	26	10	55
Dec.	last quart	3	20	47
	new moon	11	22	49
	first quart	19	4	51
	full moon	25	23	36

A short Instruction,

Almanach for the yeare 1668. New-stile.

	Moon.	da.	ho.	mi.
January.	last quart	6	17	21
	new moon	13	7	49
	first quart	20	12	54
	full moon	28	16	46
Februa.	last quart	5	1	25
	new moon	11	19	27
	first quart	19	8	45
	full moon	27	8	45
March.	last quart	5	10	32
	new moon	12	8	8
	first quart	20	4	30
	full moon	27	21	44
April.	last quart	3	15	31
	new moon	10	21	50
	first quart	18	23	12
	full moon	26	7	54
May.	last quart	2	22	26
	new moon	10	12	15
	first quart	18	15	11
	full moon	25	15	58
June.	last quart	1	6	21
	new moon	9	2	52
	first quart	17	4	38
	full moon	23	22	57
July.	last quart	30	16	43
	new moon	8	18	3
	first quart	16	15	37
	full moon	23	5	50
August.	last quart	29	10	4
	new moon	6	11	38
	first quart	14	23	41
	full moon	22	0	0
Septe.	last quart	28	0	0
	new moon	5	0	0
	first quart	13	0	0
	full moon	21	0	0
Octob.	last quart	28	0	0
	new moon	5	0	0
	first quart	13	0	0
	full moon	21	0	0
Nove.	last quart	27	0	0
	new moon	4	0	0
	first quart	12	0	0
	full moon	20	0	0
Dec.	last quart	27	0	0
	new moon	4	0	0
	first quart	12	0	0
	full moon	20	0	0

The golden Number 16. Epacta 16. Sundayes letter A G. Quinequag. 12 Febr. Easter 1 April. Whitsunday 20 May. Advent 2 Decemb. There shall be 4 Eclipses this yeare. The first in the sunne the 10 May, in the sun 26 May, the 2 in the Moone 26 May in our Horizon, the 3 in the Sunne the 4 Novemb. in our Horizon the 4 in the Moone den 18 Novemb.

Almanach for the yeare 1669. New-stile.

	Moon.	da.	ho.	mi.
January.	new moon	1	23	50
	first quart	8	16	21
	full moon	16	17	9
	last quart	24	17	37
	new moon	31	10	2
Februa.	first quart	7	8	6
	full moon	15	12	9
	last quart	23	6	10
	new moon	29	20	12
March.	first quart	9	1	42
	full moon	17	5	11
	last quart	24	14	41
	new moon	31	6	48
April.	first quart	7	19	23
	full moon	15	18	59
	last quart	22	20	8
	new moon	29	17	50
May.	first quart	7	14	8
	full moon	15	6	38
	last quart	22	0	41
	new moon	29	6	6
	first quart	6	7	6
June.	full moon	13	11	40
	last quart	20	6	20
	new moon	27	15	19
	first quart	5	22	27
July.	full moon	12	23	14
	last quart	19	6	14
	new moon	27	10	4
	first quart	4	12	1
August.	full moon	11	6	17
	last quart	18	0	30
	new moon	26	1	38
	first quart	3	23	14
Septe.	full moon	9	13	33
	last quart	16	14	22
	new moon	24	17	44
	first quart	2	8	18
Octob.	full moon	8	23	3
	last quart	16	7	57
	new moon	24	4	27
	first quart	31	11	51
Nove.	full moon	7	10	30
	last quart	15	3	59
	new moon	23	0	45
	first quart	29	22	46
Dec.	full moon	7	0	41
	last quart	15	0	48
	new moon	42	14	17
	first quart	29	6	41

The golden Number is 17. The Circle of the Sun 26 Sunday letter F. The Roman Indiction 7. The Epact 27 Quinquagesima 3 March, Easter 21 April. Whitsunday the 9 Iuny. Advent 1 December. There shall be 2 Eclipses in the sunne. The firste the 30 April in the morningh 6 hour. The second the 24 Octob. in the evening 10 houres, but neither of bots shall be seen in our Hemisphere.

Almanach for the yeare 1670. New-stile.

	Moon.	da.	ho.	mi.
January.	full moon	5	17	28
	last quart	13	21	4
	new moon	21	2	5
	first quart	27	12	46
	full moon	4	11	46
Februa.	last quart	12	13	1
	new moon	19	12	20
	first quart	26	5	20
	full moon	6	6	19
March.	last quart	14	5	51
	new moon	20	21	36
	first quart	27	19	53
	full moon	4	23	41
April.	last quart	12	16	41
	new moon	19	6	23
	first quart	26	11	59
	full moon	4	15	0
May.	last quart	11	23	41
	new moon	18	15	32
	first quart	26	4	46
	full moon	3	3	39
June.	last quart	10	3	35
	new moon	17	1	28
	first quart	24	21	47
	full moon	2	13	58
July.	last quart	9	7	39
	new moon	16	14	6
	first quart	24	14	5
	full moon	0	22	54
August.	last quart	7	12	56
	new moon	15	2	44
	first quart	23	6	12
	full moon	0	7	1
Septe.	last quart	5	23	52
	new moon	13	18	19
	first quart	21	20	44
	full moon	28	15	12
Octob.	last quart	5	9	42
	new moon	13	11	37
	first quart	21	9	22
	full moon	28	0	18
Nove.	last quart	4	1	41
	new moon	12	5	30
	first quart	19	19	40
	full moon	26	10	55
Dec.	last quart	3	20	47
	new moon	11	22	49
	first quart	19	4	51
	full moon	25	23	36

The golden Number is 18. The Epacta 8. The Sundayes letter E. Quinquagesima 16 Febr. Easter 6 April, Whitsunday 25 Mey. Advent 30 Novemb. 4 Eclipses, the first of the Moon 4 April, at noone. The second of the Sunne 19 April, at evening 7 houres. The third of the Moon 29 Septemb. at the Morningh 3 houres. The fourth of the Sunne 13 Octob. at evening 11 a clocke.

Almanach for the yeare 1671. New-stile.

	Moon.	da.	ho.	mi.
January.	last quart	2	17	46
	new moon	10	14	19
	first quart	17	11	47
	full moon	24	13	18
February.	last quart	1	1	48
	new moon	9	3	37
	first quart	15	19	28
	full moon	23	6	51
March.	last quart	3	10	12
	new moon	10	14	6
	first quart	17	6	49
	full moon	24	23	59
April.	last quart	2	2	40
	new moon	8	23	1
	first quart	15	15	52
	full moon	23	10	41
May.	last quart	1	13	58
	new moon	8	15	32
	first quart	26	4	46
	full moon	3	3	39
June.	last quart	10	3

Almanack for the year 1672. New-ſtile.

	Moon.	da.	ho.	mi.
	First quart	7	8	52
	full moon	14	0	7
January	laſt quart	21	10	46
	new moon	29	12	50
	First quart	5	17	19
	full moon	12	12	52
Februa.	laſt quart	20	11	37
	new moon	28	3	10
	First quart	5	23	50
	full moon	13	2	49
March,	laſt quart	21	3	12
	new moon	28	14	48
	First quart	4	6	21
	full moon	11	7	51
April,	laſt quart	19	20	43
	new moon	26	23	57
	First quart	3	14	9
	full moon	11	5	15
May,	laſt quart	19	11	24
	new moon	26	7	25
	First quart	2	0	6
	full moon	10	0	30
Iune,	laſt quart	17	23	14
	new moon	24	14	25
	First quart	1	12	23
	full moon	9	15	18
Iule,	laſt quart	17	7	48
	new moon	23	21	36
	First quart	31	3	10
	full moon	8	5	19
Auguſt.	laſt quart	15	13	58
	new moon	22	6	15
	First quart	29	21	4
	full moon	6	18	30
Septe.	laſt quart	13	18	50
	new moon	20	17	14
	First quart	28	14	30
	full moon	6	4	46
Octob.	laſt quart	13	0	24
	new moon	20	7	10
	First quart	28	9	48
	full moon	4	18	7
Nove.	laſt quart	11	8	38
	new moon	19	0	7
	First quart	27	4	25
	full moon	3	4	52
Dec.	laſt quart	10	20	15
	new moon	18	19	4
	First quart	26	21	14

The golden Number, and Epacta is 1. The Sondayes letters C B. Quinquag. 28 Feb. Eaſter 17 April. Whitſunday 5 Iuny. Advent 27 Novemb. 4 Eclipſes the firſt of the Sunne 28 Feb. the ſecond of the Moon 13 March, the third of the Sunne 22 Aug. the fourth of the Moon 6 Septemb. al to gether without our Horiſon.

Almanack for the year 1673. New-ſtile.

	Moon.	da.	ho.	mi.
	full moon	2	15	14
	laſt quart	9	11	19
January	new moon	17	14	36
	First quart	25	11	10
	full moon	1	1	42
	laſt quart	8	5	58
Februa.	new moon	16	8	59
	First quart	23	21	30
	full moon	2	12	38
	laſt quart	9	23	43
March,	new moon	18	0	50
	First quart	25	4	33
	full moon	1	1	10
	laſt quart	8	15	44
April,	new moon	16	13	46
	First quart	23	9	46
	full moon	30	12	44
	laſt quart	8	12	44
May,	new moon	15	23	43
	First quart	22	14	44
	full moon	30	1	54
	laſt quart	7	4	28
Iune,	new moon	14	7	42
	First quart	20	21	34
	full moon	28	16	39
	laſt quart	5	18	52
Iule,	new moon	13	14	41
	First quart	20	7	10
	full moon	28	7	29
	laſt quart	5	6	22
Auguſt.	new moon	11	21	44
	First quart	18	19	56
	full moon	26	22	53
	laſt quart	3	15	35
Septe.	new moon	10	5	49
	First quart	17	11	52
	full moon	25	14	14
	laſt quart	2	12	56
Octob.	new moon	9	15	47
	First quart	17	6	23
	full moon	25	4	57
	laſt quart	1	5	3
Nove.	new moon	8	4	28
	First quart	16	2	31
	full moon	23	18	52
	laſt quart	30	12	19
Dec.	new moon	7	20	9
	First quart	15	23	8
	full moon	23	6	51
	laſt quart	29	21	31

The golden Number 2. Epacta 12 Sundayes letter A. Quinquageſima 12 Febr. Eaſter 2 April, Whitſunday 21 May, Advent 3 Decemb. 2 Eclipſes, The firſt of the ſunne 16 Feb. at evening 2 houres, The ſeconde 12 Aug. at the Morning 9 houres the ſeconde of the ſunne 12 Aug. at the morning 9 houres.

Almanack for the year 1674. New-ſtile.

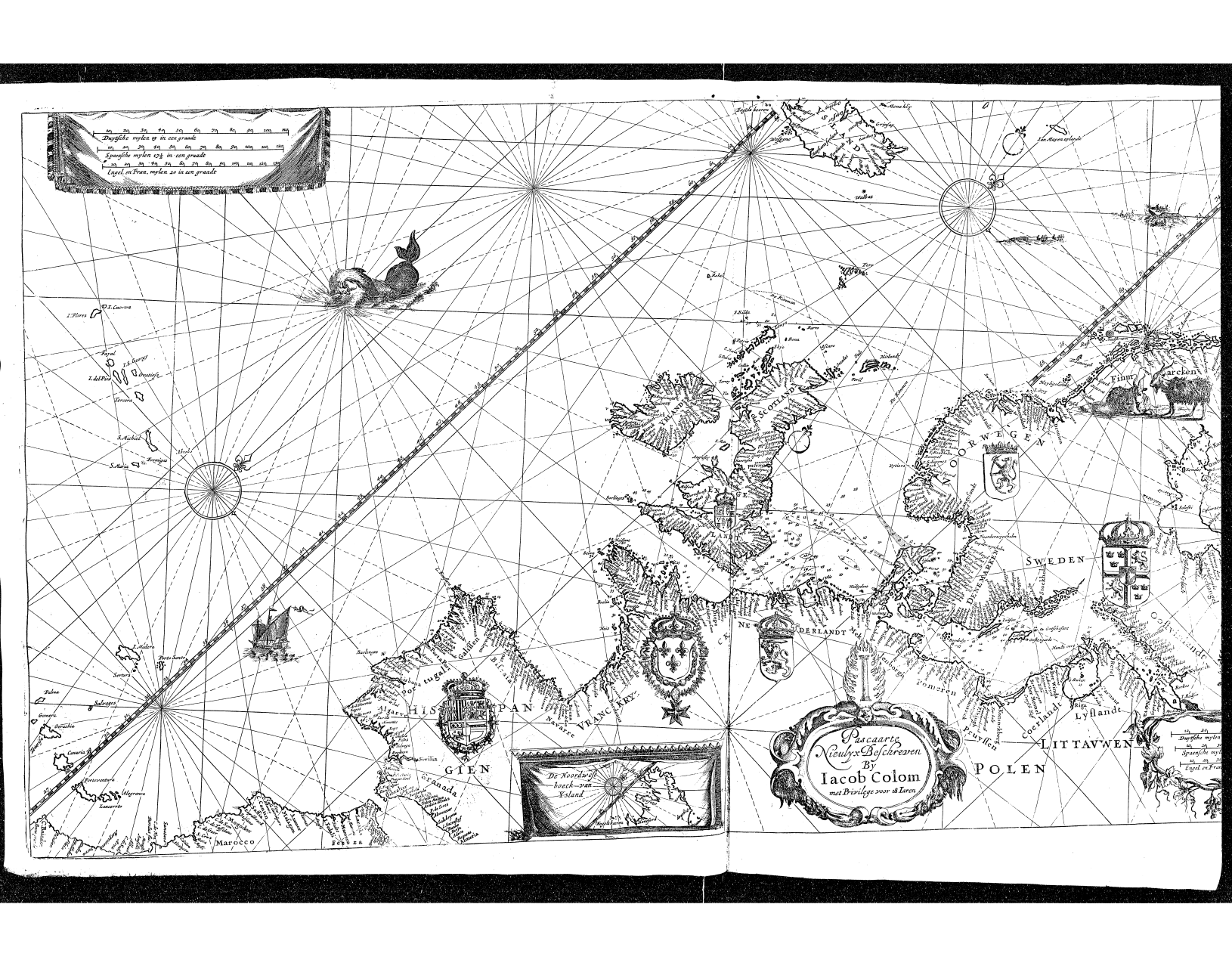
	Moon.	da.	ho.	mi.
	new moon	6	14	12
	First quart	14	18	16
January	full moon	21	17	50
	laſt quart	28	9	41
	new moon	5	9	14
	First quart	13	10	23
Februa.	full moon	20	3	47
	laſt quart	27	0	16
	new moon	7	3	47
	First quart	14	23	14
March,	full moon	21	13	17
	laſt quart	28	16	44
	new moon	7	20	16
	First quart	13	7	51
April,	full moon	19	22	50
	laſt quart	27	9	56
	new moon	5	10	24
	First quart	12	13	18
May,	full moon	19	8	54
	laſt quart	27	3	24
	new moon	3	21	44
	First quart	10	17	13
Iune,	full moon	18	20	14
	laſt quart	25	20	19
	new moon	3	6	56
	First quart	9	21	41
Iule,	full moon	17	9	5
	laſt quart	25	12	4
	new moon	1	14	54
	First quart	8	4	43
Auguſt.	full moon	15	23	44
	laſt quart	24	2	30
	new moon	30	22	30
	First quart	6	15	19
Septe.	full moon	14	15	47
	laſt quart	22	14	57
	new moon	29	6	37
	First quart	6	5	32
Octob.	full moon	14	9	4
	laſt quart	22	1	41
	new moon	28	16	12
	First quart	4	23	12
Nove.	full moon	13	1	55
	laſt quart	20	10	17
	new moon	27	3	39
	First quart	4	19	39
Dec.	full moon	12	17	50
	laſt quart	19	17	46
	new moon	26	17	46

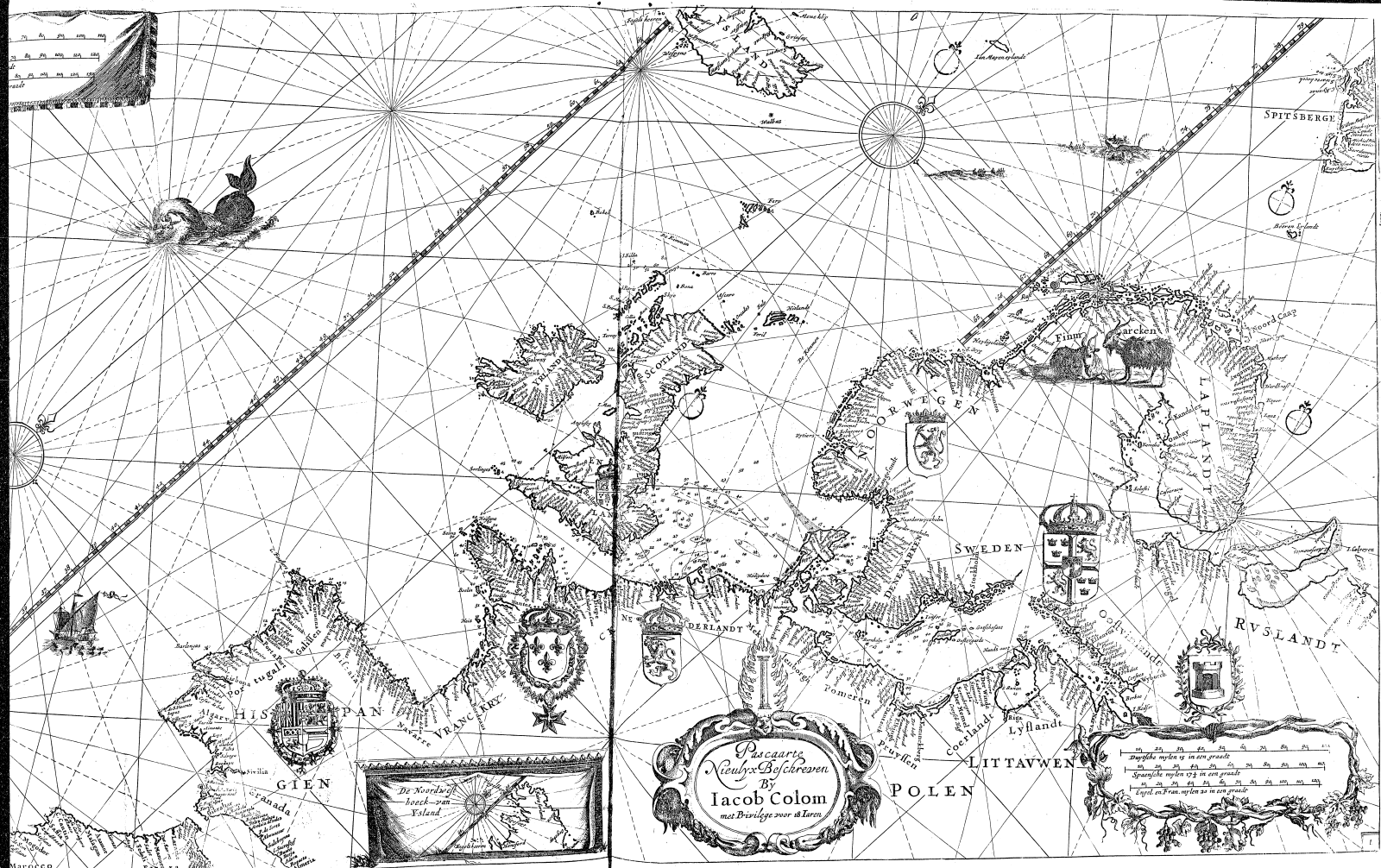
The golden Number is 3. Epact 23. The Sundayes letter G. Quinquageſima 4 Feb. Eaſter 25 March, Whitſunday 13 May. Advent 2 Decemb. 5 Eclipſes, the firſt of the Moon 22 Ianuary. The ſecond of the Sunne 5 Febr. The third of the Moon 17 Iulius, the fourth of the Sun 2 Aug. The fifth of the Sunne 27 Decemb.

Almanack for the year 1675. New-ſtile.

	Moon.	da.	ho.	mi.
	First quart	3	16	29
	full moon	11	7	54
January	laſt quart	18	1	17
	new moon	25	10	3
	First quart	2	13	0
	full moon	9	19	53
Februa.	laſt quart	16	10	30
	new moon	24	3	36
	First quart	4	7	10
	full moon	11	5	49
March,	laſt quart	17	21	22
	new moon	25	21	22
	First quart	2	21	56
	full moon	9	14	26
April,	laſt quart	16	11	1
	new moon	24	14	0
	First quart	2	8	45
	full moon	8	22	30
May,	laſt quart	16	1	48
	new moon	24	4	57
	First quart	31	15	53
	full moon	7	6	50
Iune.	laſt quart	14	17	53
	new moon	22	17	48
	First quart	29	20	20
	full moon	6	16	6
Iule,	laſt quart	14	10	43
	new moon	22	4	48
	First quart	29	0	0
	full moon	5	3	22
Auguſt.	laſt quart	13	3	49
	new moon	20	14	26
	First quart	27	5	11
	full moon	3	16	58
Septe.	laſt quart	11	20	29
	new moon	18	23	26
	First quart	25	13	3
	full moon	3	9	2
Octob.	laſt quart	11	12	11
	new moon	18	8	19
	First quart	25	1	43
	full moon	2	2	56
Nove.	laſt quart	10	2	19
	new moon	16	17	56
	First quart	23	17	38
	full moon	1	21	42
Dec.	laſt quart	9	14	0
	new moon	16	4	42
	First quart	23	12	45
	full moon	31	15	36

The golden Number and Epacta is 4. the Sondayes letter F. Quinquageſ. 29 Febr. Eaſter 14 April, Whitſuyday 2 July. Advent 1 December. 4 Eclipſes the firſt of the Moon 11 Iune, the ſecond of the Sunne 23 Iune, the third of the Moon 7 Iulius. The fourth of the ſunne 16 December.


Duytsche mylen 15 in een graadt
Spaensche mylen 17½ in een graadt
Engel. en Fran. mylen 20 in een graadt
Pascaarte
Nieulyx Beschreven
By
Iacob Colom
met Privilege voor 18 Iaren
De Noordwest
hoeck van
Yseland
SCOTLAND
ENGELANDT
NOORWEGEN
SWEDEN
DENEMARKEN
NEDERLANDT
HISPANIEN
FRANCKRYCK
POLEN
LITTAUWEN
Finmarcken
Lyflandt
Coerlandt
Pruyssen
Pomeren
Marocco
Sevilla
Granada
Algarve
Portugal
Navarre
Gallicien
Biscaien
Terceira
S. Michiel
S. Maria
T. del Pico
Graciosa
Flores
Corvo
Fayal
Pico
Canaria
Gomera
Palma
Salvagen
Forteventura
Ilegranza
Lancerote
Tenerife
Gratiosa
Tera Santa
Madera
Porto Santo
Sertosa
Mogador
Safy
Azamor
Mazagan
Arzilla
Tanger
Ceuta
Gibraltar
Malaga
Almeria
Cartagena
Alicante
Valencia
Barcelona
Tortosa
Tarragona
Rosas
Cabo de Gata
Cabo de Palos
Cabo de Sagres
Cabo de Finisterre
Cabo de Roca
Cabo de Espichel
Cabo de Tarifa
Cabo de Trafalgar
Cabo de Santa Maria
Cabo de Sant Vincent
Cabo de Gata
Cabo de Palos
Cabo de Sagres
Cabo de Finisterre
Cabo de Roca
Cabo de Espichel
Cabo de Tarifa
Cabo de Trafalgar
Cabo de Santa Maria
Cabo de Sant Vincent


Pascaarte
Nieulyx Beschreven
By
Iacob Colom
met Privilege voor 18 Iaren.
De Noordsche
hoeck van
Ysland
SPITSBERGE
Finm
arcken
LAPLANDT
SWEDEN
NOORWEGEN
SCOTLAND
DENEMARCKEN
NEDERLANDT
Oostlandt
RVSLANDT
LIT TAVWEN
POLEN
Pomeren
Pruyssen
Coerlandt
Lyflandt
HISPANIEN
GIENA
Granada
Sevilla
Portugael
Galliec
Navarre
VRANCKRYK
Marocco
Fessa
Duytsche mylen 15 in een graadt
Spaensche mylen 17½ in een graadt
Engel. en Fran. mylen 20 in een graadt

The first part

THE FIRST BOOK

OF THE

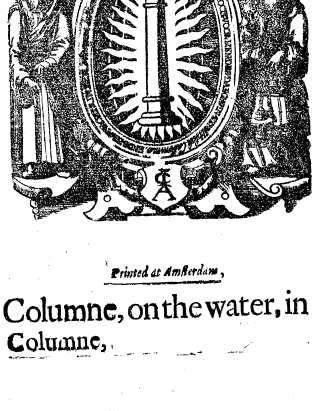
FIERIE-SEA-COLVMNE,

WHEREIN

The Descriptiō of the whole

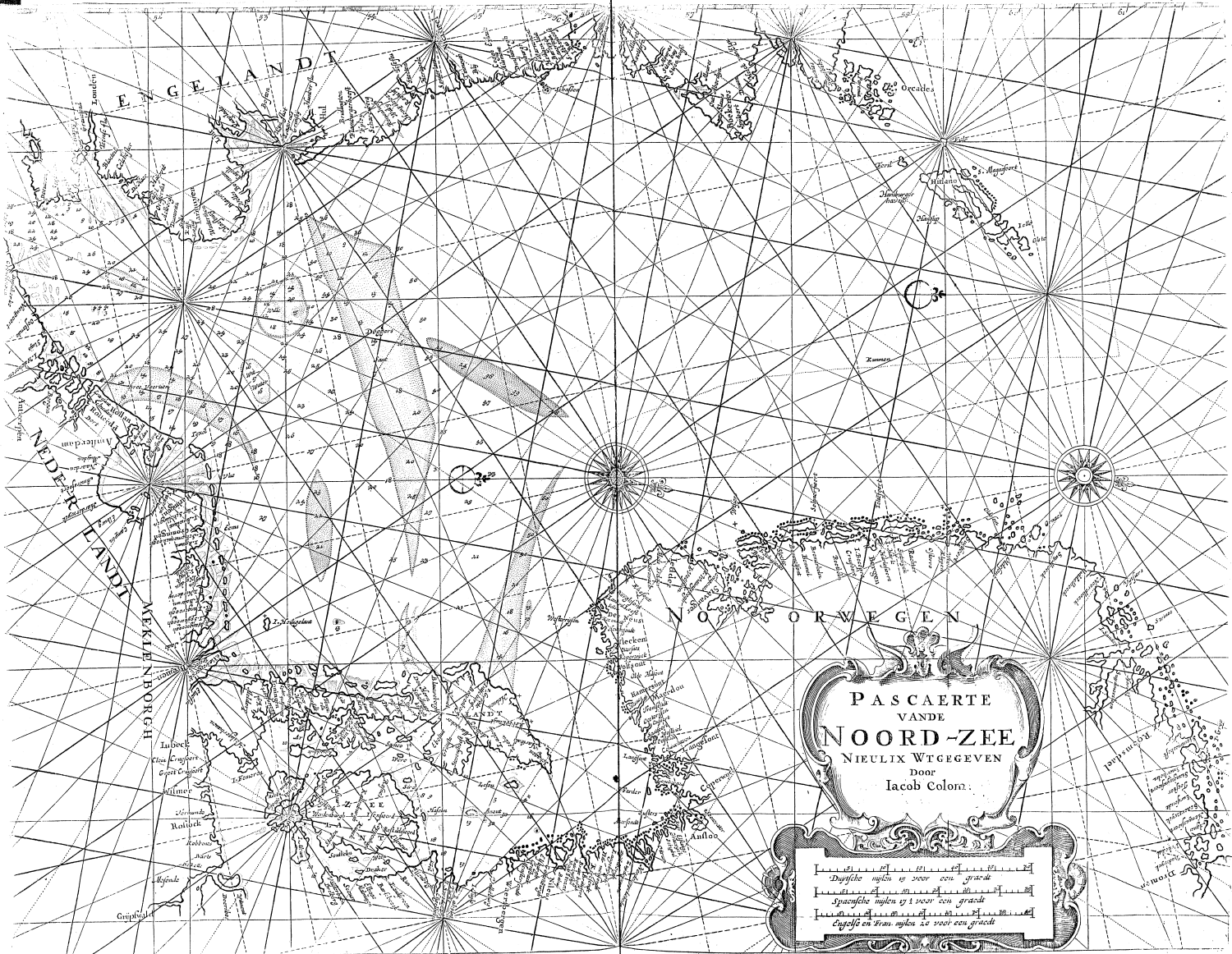
NORTH-SEA.

VVith priviledge of the High and Mighty Lords, the States Generall, for twelve yeares.



Printed at Amsterdam,

By Iacob Columne, on the water, in the Fierie Columne,

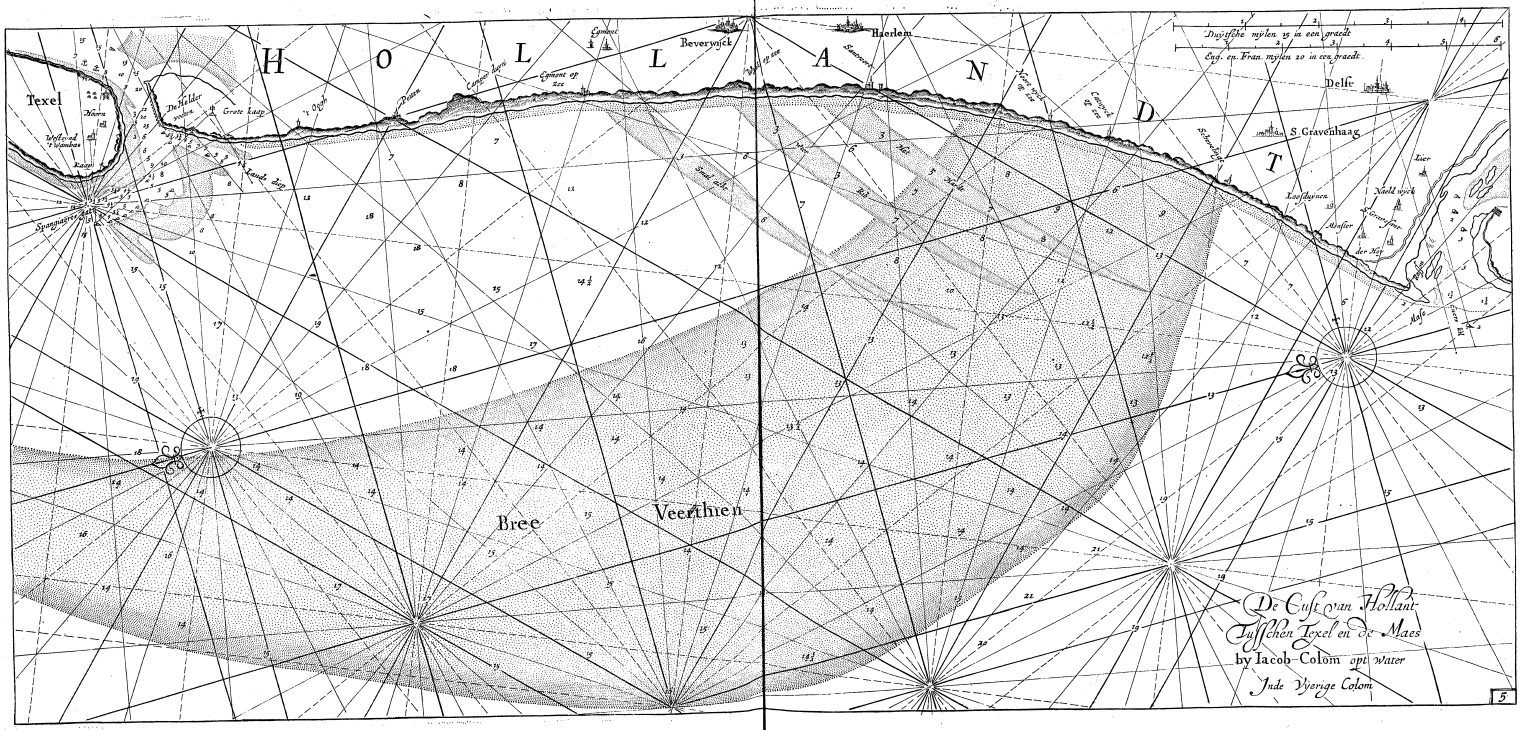


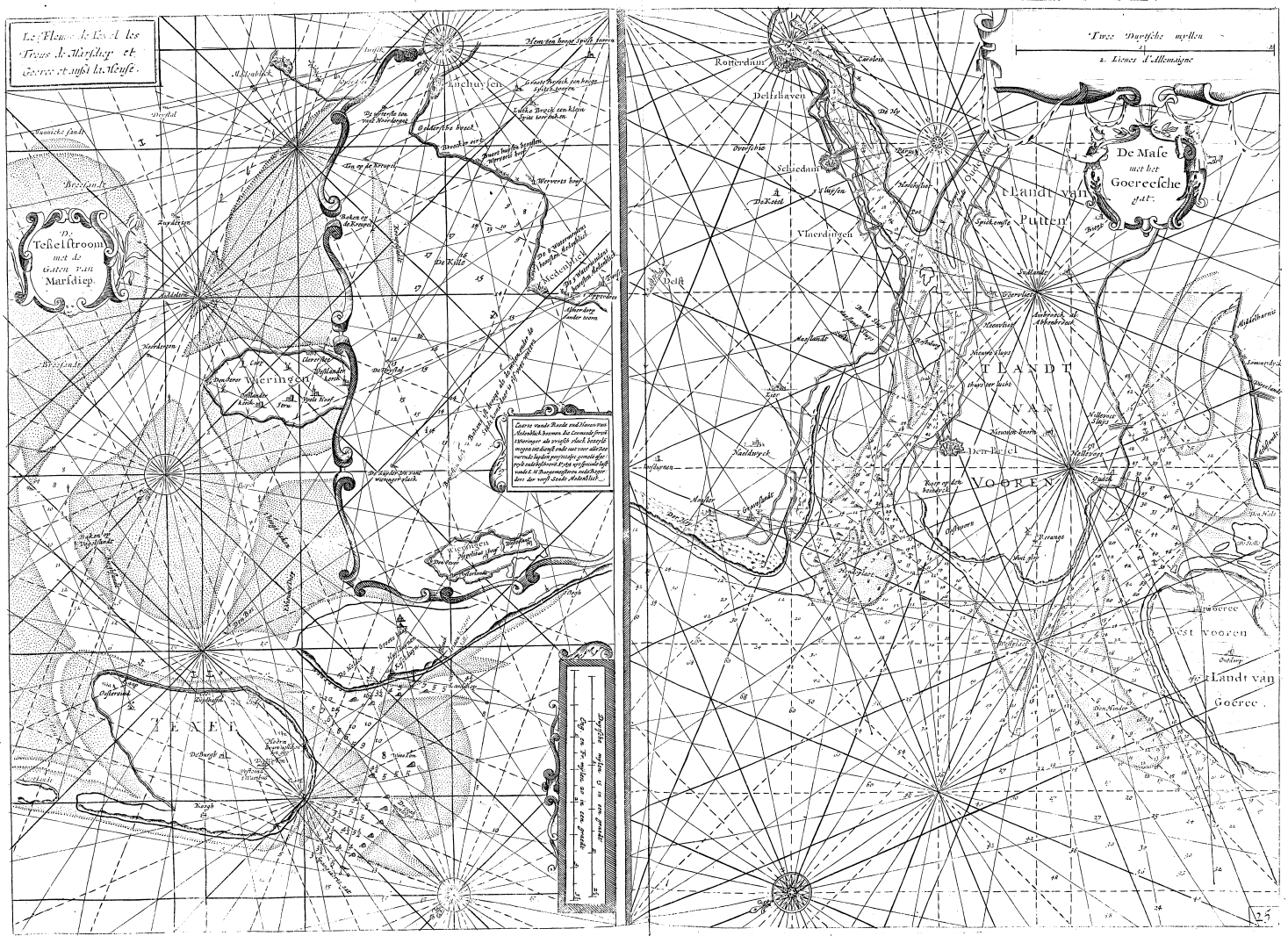
PASCAERTE VANDE NOORD-ZEE

NIEULIX WTGEGEVEN

Door

Iacob Colom.


H O L L A N D
Texel
Beverwijck
Haerlem
Delft
S. Gravenhaag
Bree
Veerthien
De Cust van Hollant
Tusschen Texel en de Maes
by Iacob Colom opt Water
Jnde Vyerige Colom
5


De Teffelstroom met de Gaten van Marsdiep.
De Mase met het Goereesche gat.
Vlieter
Texel
Vlieland
Goeree
Overflakkee
Rotterdam
Delfshaven
Schiedam
Vlaardingen
Delft
Leyden
Haerlem
Amsterdam
Enchuysen
Medenblick
Hoorn
Campen
Stavoren
Harlingen
Brielle
Helvoet
Vlissingen
Middelburg
Zierickzee
Goereé
Oost vooren
Landt van Goeree.
Duytsche mylen
Lieues d'Allemaigne

The Firſt part of the Firie Columne.

THE FIRST BOOKE,

Of the

WESTERN NAVIGATION

Containing

The deſcription of the Zea-Coaſts of Holland, Zealand, and Flanders, from Teſſell to the Heade off Dover off Calice.

The firſt demonſtration,

Where in are deliniated the Theſſel-ſtreame, and the Chamell off the ſame, as alſo the Maſe, and the Chamell off Goeree.

Pampus

FOR to ſaile from Amſterdam to the Fall of Urck, you muſt keep the middle of the channell in ſailing to Tyoort, and from thence over Pampus, with a ſhippe off greate draught, that draweth tenne foot or more, keepe Marcken church without to the land of Udam, called Schyteldoeckshaven, ſo long untill that the ſteeple of Zuyderwouw come paſt Kinnigherbuert, which are the houſes half wayes betwixt Schiteldoecks haven and Durgerdam, goe then towards the land eaſt, untill that the New church off Amſterdam come aboute Durgherdam, keepe that ſo ſtanding, untill that the church of Weeſp become paſt the Houſe or Caſtle at Muyen, ſo that it doe ſtand ſomewhat nearer to Muyen then to the Houſe, keepe Weeſp ſtanding ſo untill that Edam come without the eaſt end of Marken. In this farewaye it is a foote deeper, then if you ſailed right through.

For to avoide Muyen ſand: men were wont to bring the houſes which were wonte to ſtand upon Tyoort to the ſouthwards of the Heyligherſtee at Amſterdam, thereby you can make ſome reckoning, they are good longſt markes: when Monnickedam is aboute the weſt end of Schyteldoeckshaven, and the houſe at Muyen betwixt Weeſp & the Church at Muyen, then are you thwart of Muyen ſand. For to ſaile right through over Pampus, then keepe the ſteeple of Diemen over or aboute the pointe of Tyoort, ſo lang as you can ſee Tyoort, that is a right longſt marke for to ſaile over Pampus.

When you are come thwart of the eaſt ende of Marcken, goe then on northaeſt, or ſomewhat more eaſterly towards the Fall of Urck, which is ſeven leagues, when you are come within a great league of Urck, you ſhall meete with a hard ſand, called the Houtribbe, lying ſouth eaſt and northweſt thwart over the Fareway, there is no more water upon it, then upon the Flat off wieringhen, or of Freeſland, you ſhall finde alſo no deeper water there then right through. When Enchuyſen lieth northweſt and northweſt and by weſt from you, then you are upon the Houdribbe. Before that you come againſt the ſand, you can by night ſee the fire upon Urck. When that Urck or the fire is more northerly then northeaſt from you, and that you get ſhoulding, then that is certainly of the Houtribbe: for ſo you cannot come to neer the Enchuyſen ſand. When you come from the ſouthwards you are not about the Enchuyſen ſand before that the Church upon Urck come without the litle village of houſes, which is then eaſt and by ſouth and eaſt ſoutheaſt from you: if that then you goe awaie northweſt and by weſt or weſtnorthweſt, you ſhall runne cloſe alongſt by the ſide of the ſand. With a ſhip of great draught, bring the church a good wayes through the houſes, untill that it ſtande eaſtſoutheaſt from you, then goe bouldly on northweſt and by weſt, or keepe Medenblick without the point of the Ven, and ſo you ſhall not come to near, neither to ſand nor ſhowlde. Likewiſe if you come from the north wards, and bring Urck not more eaſterly then ſoutheaſt from you, then you cannot take hurt alſo of the Enckhuyſen ſand. From Urck to the buyes upon the Cripple and Hoftſtede, the courſe is northweſt & by weſt, with that courſe you may runne all alongſt unto the ſouther-buye upon Wieringen flat: in turning to windwards you may wel bring Medenblick a litle within the point of the Ven, but when Medenblick is without it, then you are in the right fareweye.

Markes of Enckhuyſen ſand.

From the Buye upon the Crippell, which lieth upon the eaſt end off the Cripple-ſand three fathom, unto the beakon upon Cripple-ſand, the courſe is northweſt and by Weſt, and northweſt. When Lutkebrooke, and ſmall ſpire ſteeple commeth to Hem (which is alſo a ſpire ſteeple) then are you thwart off that beakon. From the beakon upon the Cripple, unto the ſouther buye upon Wieringher flat, the courſe is northweſt and by Weſt, or Weſtnorthweſt, according as the Wind and tyde ſhall bee, it lieth at high water with an ordinary tyde, in thirteene foot and a halfe, the markes thereof are theſe: Greatebroocke commeth betwixt two Hay-ſtacks to the eaſtwards of the five Water-mils which ſtand to the eaſtwards of Wavers hoof, that is a long marcke in the S. Twiſch a ſharpe ſteeple to the Weſtward of Medenblick, commeth over Almerdorp, there was wont to bee a litle flat ſteeple, but it is fallen downe, and therefore now not ſo good to be knowne, that was a right thwart marke. Vpon Wieringer ſtandeth a cape, bring Eaſtlander ſteple which is a flat ſteeple upon Wieringen, right over the cape, and ſaile ſoo right with it, and you ſhal come right with the buy. When you are at the buy, Weſtlander Church commeth then over Cleverſtee, and the eight mils to the eaſtwards of Medenblick, a little without the Towne. For to finde the deepeſt of the flat comming from the Cripple, you muſt bee carefull to looke out for the foreſaid markes. If that Twiſch come firſt to Almerdorp, before Cleverſtee come to weſtlander Church, then you are to neare to Breeſand, or the ground on the ſtarboard ſide, theſe are ſure markes for to ſaile over the flats, when there lie no buyes. Alongſt to the eaſtwards of the buye is the deepeſt water. If you will anckor before the Wieringer flat, then come no nearer the Flat then when Twiſch commeth a little to the Northwards of Opperdoes, or halfe wayes betwixt Opperdoes and Almerdorp.

Markes off the beacon upon Cripe-ſtand.

Markes off the fourther buy upon the flat.

For to ſaile from the foreſaid ſouther buy over the Gammels to Medenblick, you muſt bring the weſtermoſt watermill of the eight (which ſtand to the eaſtwards off Medenblick) a capſtone barres lengt without or to the eaſtwards of the Bulwarke off thee Towne, and ſayle then boldly without feare right in with them, untill that you come into the road where the ships commonly lye, or elſe, if you deſire to goe into the Haven, then ſaile in right to the northerhead, there is nothing that can hurt you. But if you muſt turne to windwards over the Gammels, and that your ship draweth more then eleven foot water, then runne not further over to the weſtwards, then that the foreſaid Watermill commeth allmoſt within, or a hand ſpikes length to the foreſaid Bulwark, ſo that yet you may well ſee through betwixt them, then caſt about, and run over to the eaſtwards, ſo long untill Greatebrooke come in the five water milles, which ſtand to the eaſtwards of Warmerſhoof, or on to the eaſtwards of them, ſoo you ſhall not doe amiſſe, for it is there broad and wide.

For to ſail over the Gammels to Medenblick.

If you deſire to ſaile over the Gammels to Medenblick, when you come from the Flye, then bring the ſteeple off Opperdoes over the weſtermoſt Water-mill off five, which ſtand to the weſtwards of Medenblick, and runne in ſo right with them, untill that the weſtermoſt watermill off eight (to the eaſtwards off Medenblick) come to ſtand a capſtone barres lenght without the Bulwark, as here before once already hath been ſaid. Having theſe marks thus, and that it doe become

darke, then goe on ſouth and ſouth and by eaſt, according as the wind and tyde ſhall be, and you ſhall not doe amiſſe, neither ſhall you miſſe the Town. In this foreſaid faire way, there no leſſe depth then upon the Wieringher flat, and all ſoft ground.

When the ſteeple of Twiſch is over the weſtermoſt water-mill except one of the five which ſtand to the weſtwards or Medenblick, and Grootebroek, in the little village, to the e wards of the five watermils on the Eaſterdyke; then are you in 13 foot from the northweſt point of the Cripple, and paſt the taile of the Cripple. Upon theſe foreſaid markes, and 13 foot, lieth a buye with three legges, and on the foreſaid weſt ſhoare lie three drift-beakons in 12 foot, and then commeth the weſtermoſt water-mill (of the eight which ſtand to the eaſtwards of Medenblick) and ſo you ſhall not have leſſe water then upon the Wieringer flat.

For to ſail over the wieringen flat.

From the Souther buye to the ſecond or middle buye, the courſe is northweſt and northweſt and by north: but for to find the deepeſt water, goe firſt northweſt ſo long untill that Ypels-hoofs Church come over the watermill, which is called the Bolmill, and then forth n. w. and by n. When the Cornmill upon Wieringen commeth in the ſwamp off the Oever, then you have the length of the ſecond Buye, which lieth upon the weſt, or the ſouth end of a little place, called the Repell, the faire way is alonght to the weſtwards of it, there being at low water two fathom large, and at high water ſcarce three fathom deep. On the weſt ſide of the fayre way, betwixt the ſouther buye, and the middleburye, neareſt the middleburye lieth a hard ſand called the Sow, or the old Sow, which on the eaſt ſide is very ſteepe and needle to which (in failing up) men might ſaile within a point or a tayle of it: to the weſtwards off ſhooteth off another taile to the northwards, a great wayes towards the northeaſt buye. Upon the outermoſt, or northermoſt point, called Seughoore, ſtandeth allwayes a beakon. Upon Wieringher upon the Oever ſtand two litle capes with barrels on them, the one upon the Northend off the Oever, and the other upon the head, they are ſo little, that you can hardly ſee them: when you come off from the ſoutherbuye towards the middle buye, then keepe them not one in the other, for if you keepe them one in the other, then you will bee very cloſe by the ſouth ſhoare, & ſhall but even run along the ſouth of the old Sow, but keep the ſouthermoſt a litle to the weſtwards of the northermoſt, and then you ſhall run alongſt the right fareway, and ſhall not take any hart off the old Sou. When you come neare the middlebuy, you muſt leave theſe marks and ſafe them then no longer.

From the middle buye unto the Northerbuye, the courſe is northnorthweſt, When you come thwart off the northerbuye, then commeth Ooſtlander Church and the Commill, both over a little Chappell covered with red tiles, that ſtand upon the Oever, thwart off it alſo ſtandeth the foreſaid beakon upon Senghoort. By the Northerbuye it is ſcarce three fathom deepe at high water, the fareway is alonſt to the weſtwards off it. When you come by the northerbuye, keepe ſtill the foreſaid northnorthweſt courſe, untill that Ooſtlander Church come to the northwards of the Sedge dyke of the Oever, and then you are paſt the litle plate which lieth by the northerbuye.

When as that Ooſtlander Church commeth from the Sedgedyke, goe then north, and north and by eaſt on, to the Neſſe. In that fareway it is broad and wide, the weſt ſhoare all alongſt unto the Neſſe, is very flat, there you cannot take any hurt, but may boldly runne alongſt by it, although it were a lee ſhoare, but the eaſt ſhoare is ſteepe, eſpecially ſomewhat further out towards Jaep vaer. When the great Cape from Wieringhen ſtandeth a great ſhippes length to the eaſtwards of the houſes upon the Oever, then you are well to wave, and right in the fareway betwixt the northerbuye and the Neſſe. When Ypels-hoof and Stru are one in the other, there The Neſſe. is the roade, where men doe lade and unlade, you may anckor thereabouts in the middeſt off the fareway in foure fathom, the nearer the eaſt ſhoare the deeper. Jaepvaer is a Jaepvaer. tayle off ſand or plate faſt to the eaſt ſhoare, which you might ſaile within when you ſaile off, but ſpecially in ſailing upwards in ſix or ſeven fathom, upon it lieth a blacke buye. Upon the point off the Neſſe over againſt Jaep-vaer lieth a white buye, theſe lye both in three fathom, or three fathom and a halfe. In the winter, when the buyes are taken away, then in place off the white buye there is ſet a beakon upon the Neſſe. From the Neſſe to Vogel-ſand, the courſe is moſt northweſt, therefore when you have gotten the lenght of the buye or the beakon upon the Neſſe, goe then more weſterly, northnorthweſt, and northweſt and by north and northweſt, unto the Beakon upon Voghel ſand, the weſt ſhoare you may Vogelſand found in ſix and ſeven fathom. The markes off this reach are theſe, the Mill of Ooſter-end (which is a little Village upon the eaſt end off Teſſell) and the Cape which ſtandeth upon the dyke, one in the other, then are you amiddeſt the Channell in the deepe, that is, tenne, eleven, and twelve fathom; when the mill ſtandeth ſomewhat to ſouthwards, or to the weſtwards of the Cape, then are you by the ſouth ſhoare, which is very ſteep, which (in turning to windwards) you may not come neare then in eight or nine fathom, but being paſt Voghel-ſand, it groweth ſhowlder, and the eaſt ſhoare very ſteepe: As ſoone as you finde that it beginneth to ſhowld, you muſt caſt about, elſe you ſhould preſently be on againſt the eaſt ſhoare.

From the beakon upon Voghell ſand, the courſe is weſt- Burgſand; northweſt unto the buye upon Burgſand, which lieth upon the taile off the Share, the markes off it are: the Eyerland even unto the eaſt point of the Iland Teſſel, and the Church off the Horne upon Teſſell too Zuyd-haffell, which is a few houſes to the northwards off the Schonce. Or elſe when you come about Voghelſand, then keep the foreſaid cape and mill one in the other, untill that the foreſaid Horn come to, or through Zuyd haffel, and then run on, keeping them ſo: when that Eyerland commeth even to the eaſt point off Teſſell, then you have the length of the buye upon the Burgſand, you may bring the Horne well ſomewhat to the northwards of Zuyd-haffell, but in no wiſe to the ſouthwards of it, for elſe you ſhould ſaile on againſt the ſouth ſhoare. For to ſaile from thence to Copevaerders roade, you muſt keepe the Horne to Zuydhaffell, and ſaile forth keeping them ſo, untill you come againſt Teſſell in the roade, and anckor there where you thinke good. Before Ooſterend it is beſt for ſmall ſhips, there it is ſhould water, and there goeth little tide, but moſt ſhips doe anckor before the Geeſt.

Vpon the point of the Boſſe lieth a white buy in three fa- The boa. thom on the weſt point off the Balgh, which you muſt leave on the ſtarboard ſide, & run about to the eaſtwards off it into the Balgh, and then forth alongſt by the beakons to Wieringhen, you muſt leave all the beakons alſo on the ſtarboard ſide.

For to ſayl out at Theffell.

For to ſaile from the Copevaerders road out at the Teſſel, you muſt goe firſt ſouthweſt or ſomewhat weſterly to the Helder, or run alongſt by the Teſſell ſide in 9 or 10 fathom, untill you come neare the Helder, and then goe out weſt cloſe alongſt by the ſhore off the Helder, and by little and litle ſomewhat more northerly, untill that the capes upon Huyſdown be one in the other, or that the greateſt come through the ſmalleſt, to wit, to the weſtwards off it, and then goe on N. N. W. or more northerly or weſterly, according as the wind or tyde ſhall be, untill you come againſt the northſhoare, in 5 or 6 fathom, and run boldly out alongſt by it, untill you be 2 leare out at ſea.

When the tower off Wefter-end (which men do name the Weſten, or the Wambuys) commeth to be E.N.E. from you, or a little more eaſterly, then you have the length of Cape and Steeples buy, that is, the innermoſt buy of the Spaniards channell, which you ſhall eſpie on the larboard ſide. To the northward of it lie three other buyes, all alongſt the E. ſide off the Keyſers-plate, neare upon one courſe, (to wit, N. N. W. or a litle more northerly) which you muſt leave (inſailing out) all on the larboard ſide. The outermoſt buie lieth from the fourth north ſomewhat eaſterly upon the point off the Keyſers plate, in 22 foot at low water, you may run alongſt to the weſtwards of it, but not far, for the Keyſersplate is ou the eaſt ſide unto the outermoſt end very ſteep, but the eaſt ſhoare off the deepe it is flat. When you come thwart of the foreſaid outermoſt buye then lieth the Kooger Church right E. N. E. from you, and the capes upon Huyſdowne are one in the other.

For to ſayl in at the Spaniards channell.

For to finde the Spaniards Channell comming from the northwards, you muſt bring the Capes upon Huyſdowne one in the other, or a little through one another, to wit, the Runner that is the ſoutermoſt and greateſt, a litle to the eaſtwards of the other, then they ſhall ſtand S. S. E. from you, ſaile then right in with them, keeping them ſo, and you ſhall ſaile right upon the outermoſt buye, or in ſight of it, which lieth (as is ſaid) upon the point off the Keyſers-plate in 22, foot at low water: when you come to the buye, the Koger Church ſhall lie due eaſtnortheaſt from you.

Therefore if you come from the weſtwards or the ſouthwards, then bring that Church not more northerly then e. e. e. but rather a litle more eaſterly from you, and ſaile then right in with it, untill that the Capes come one right againſt another, or elſe you ſhould lightly fayle upon the Keyſersplate, which is without upon the North-ſide very ſteepe.

Men

Men may runne along to the weſtward of the outermoſt buy, but not far: alongſt to the eaſtwards off it, is broader and wider.

From the firſt or the outtermoſt buye, to the ſecond, the courſe is ſouth, ſomewhat weſterly, and from thence to the third, fourth, and fifth, which is the buye of the Cape and ſteeple, it is allmoſt one courſe, ſouthſoutheaſt, or ſomewhat ſoutherly, the buyes lie all on the weſt ſhoare, men may for need ſaile alongſt to the weſtwards of them, but not farre, for the weſt ſhoare is ſo ſteepe, that if a great ſhippe ſhould lye with the ſtemme againſt it, there ſhould be a head no more then 3 foot, and by the main maſt at leaſt 3 fathom deepe, but the eaſt ſhoare is flat, men may runne alongſt by it upon you lead, untill they come within the buyes. The buye upon the tayle, that is, the innermoſt buye of the Slenck, lieth from the buye upon Cape and ſteeple, ſouth and by weſt, and S. S. weſt, but the Helder ſouth eaſt. Men may ſaile from the buye upon Cape and ſteeple, right with the Helder, without danger, or to the buye upon the tayle, and from thence alongſt by the ſouth ſhore, which is alſo very ſteepe, or eight to the Helder, according as ſhall be beſt convenient for the wind and tyde. The foreſtood falleth very ſtrong over the ſouth ground north northeaſt to the Spaniards channell; untill half flood, and the The falling fore ebbe to contrary ſouth ſoutheaſt, untill halfe ebbe. The of the tyde Helder lieth from the buye upon the tayle, eaſt ſoutheaſt, and ſoutheaſt and by eaſt. When you are come near the Helder, run cloſe alongſt by it, for to avoid a taile which ſhooteth off from Geeſt ſand, which you might ſaile within when you come in out of the ſea, there lieth a Buye upon it which you muſt leave on the Larboard ſide. Being paſt the Helder, goe northeaſt, or ſomewhat more eaſterly, or alongſt by the Teſſels ſide in eight or nine fathom, unto the Copevaerders road the Wieringhen ſide is ſteep.

The Slenck In the Slenk lie 6 Buys, the innermoſt lieth upon the tayl of the Keyfers plate, weſt northweſt from the Helder. For to ſaile out at the Slenk, you muſt run alongſt to the ſouthwards of it, and leave it on the ſtarboard ſide, and go out weſt, and weſt and by ſouth, to the ſecond and third Buy, from the third to the fourth and fifth weſt ſouthweſt, the ſixt or outermoſt lieth a little more ſoutherly.

For to finde the Slenk comming in out off the ſea, then bring the Cape upon the Iland Teſſell, and the Weſten, (that is the ſteeple off Weſteynder Church, which men doe alſo name the Wambus) one in the other, then they ſhall ſtand a litle more northerly then eaſt northeaſt from you, ſayle in ſo right with them, and you ſhall run in right off the outermoſt Buy, which lieth from the Kyckdown weſt northweſt, and weſt from the Helder. If you come from the northwards or the weſtwards, & will go in at Slenk, then bring the kyckdown eaſt ſoutheaſt from you, or the great Cape upon Huiſdown in a little valley a little to the northwards of the kickdown, to wit, betwixt the kickdown and Cape Neles houſe, ſaile then ſo right in with them, untill that the Cape upon Teffell and the Weſten are one in the other, then you have the length off the outermoſt buy, and ſhall not miſſe to meet with it, which lieth in 4 fathom and a halfe at high water, and in a quarter leſſe then 4 fathom at a low water, keep that Cape and ſteeple one in the other, and ſaile in ſo right with them all alongſt untill paſt the third Buy, which lie all, (like as alſo the fourth and fifth) in the midſt off the fareway, but alongſt to the ſouthwards off it is deepeſt, the ſouth ſhore is very ſteep, ſo that having one caſt 4 fathom and a half, the next caſt you ſhall have but three fathom, but the weſt ſhore is flat going up. The fourth Buy lieth from the third eaſtnortheaſt, or ſomewhat more eaſterly: the fourth and fifth, eaſt and by north. The fifth and ſixth eaſt and by north, and eaſt northeaſt. The ſecond Buy lieth at low water 20 or 21 foot, upon the ſhowdeſt of the Slenck: the other Buyes lie in foure fathom at low water, but the ſixth, or innermoſt, in 3 fathom upon the point of the tayle, which you may not faile about to the northward off it: but muſt leaveit on the Larboard ſide in ſailing in. But you muſt reckon your tydes well. The foreſlood falleth north northeaſt, thwart over this channell, and the ſouth ground, untill halfe flood, and to the contrary the fore-ebbe ſouth ſoutheaſt, until halfebbe.

The Land tuge. Within the ſixth Buy it is broad and wide, and mee ſaile in from thence right to the Helder eaſt ſoutheaſt.

For to ſaile out at the Land-deepe, then run alongſt within a bow-ſhot of the foot ſtrand of Huyſdown, and about by the heads, and you ſhall not miſſe the innermoſt Buy, which lieth upon the ſhowlds, neareſt the weſt ſhore in ſeventeen foot at high water, and thirteen foot at low water, that ſhoulde place is not above two ſhippes lengths broad, over it, and alſo within it, it is deep enough. Thwart of that Buy ſhooteth off a little tayle from the ſhoare towards the Buy, therefore runne cloſe alongſt by the Buy, and leave it on the ſtarboard ſide of you in ſailing out. Beſides that Buy, there lye 3 other Buyes in the Land-deep, which you muſt leave all lying to ſeawards of you, and run through betwixt them and the ſhore, when you are come paſt the 4 Buy, you ſhall be paſt all the ſhoulds, and you may ſet your courſe that way that you deſire to be.

For to finde the Land-deep comming out of the ſea from the ſouthwards, you muſt take the ſoundingh of the ſhore in foure fathom and a halfe, and runne ſo alongſt by the ſhore, and you ſhall ſaile right with the outermoſt buye, and doing ſo, come no neare the ſhoare, or els you ſhould ſaile within the taile of Arrian Bergers Creeck, which ſhooteth of to ſea- Arrian wards from the ſhoare, to the ſouthwards of the ſouth-land- Bergers hill. Or els if you come out of the ſea with an open winde, Creeck. then ſed and keepe the great Cape upon Huyſdowne, over Dirckoems Sand-hill, (that is, a round Sand-hill a litle to the ſouthwards of the Kyckdowne, but not ſo high) and ſaile ſo in right with it, you ſhall not miſſe to meet with the outermoſt buye, which lieth at low Water in foure fathom and a halfe neareſt to the Weſter-grounds, or to the lakes, leave it on the larboard ſide, and runne in alongſt to the eaſtwards of it, through betwixt it and the ſhore, it lieth moſt northeaſt, and northeaſt and by north in, you cannot lightly take hurt on neither off both ſides, if you doe but take heed to keep you from the ſhoare. Thwart of the Kyckdowne, or comming to the ſouthwards of it, you muſt edge a little of from the ſhoare, for to avoyd a ſhowld which lieth thereabouts, ſomewhat of from the ſhoare. When you come to the ſecond buye, then commeth the mill to the Northwards off the Kyckdowne, and at the third, the mill and Cane Neles houſe come one in the other; which two buyes lye both in five fathom at low water. From the third to the innermoſt buye, it is northeaſt and by eaſt, run cloſe along to the eaſtward off it, for to avoyd the foreſaid litle tayle of ſand, which (thwart of it) lieth of from the ſhoare, and then forth within a bow ſhot about by the heads, and ſo along by the ſtrand of the Helder: For to ſail up from the Helder towards the Whieringe-flat, you muſt goe northeaſt, or ſomewhat more eaſterly, according as the wind and tyde ſhall be, or elſe in eight or nine fathom alongſt by the Teſſell, until that the Hoorn come to the northwards of Zuydhaffel, but take heed of the Whieringhen ſide, which is ſo ſteepe there, that you may have twelve or thirteene fathom at one caſt, and ſhould be a ground before you ſhould be able to heave the lead againe.

When that the Hoorne commeth then to Northwards off zuyd-haffell, then keep them ſo ſtanding, and ſayle up ſo to the Voghel-ſand, when that the Eyrland commeth even without the eaſt point of Teſſell, then you have the length of the buye upon Burghſand, which lieth on the ſouthſhore, Burgſand upon a tayle of ſand, which men may ſaile within a five or ſixe fathom. From that Buye upon Burghſand, it is E. S. E. to the beakon upon Voghel-ſand, but ſaile upon the foreſaid markes of the Hoorn and zuyd-haffell, ſoo long untill that you have the Cape upon Teſſell, and the mill of Oofter-end one in the other, then keep men one in the other ſeavingh the firſt markes, and fail up ſo unto the buye or Beakon upon the Neſſe, and ſo you ſhall run amidſt the channell in the fareway The Neſſe. which is 20, 21, and 22 fathom deep. If you bring the mill a little to the Weſtwards off the Cape then you ſhall be cloſe by the ſouth ſhoare, which is ſo ſteepe, that you may not come neare it, in turning to windwards, then in eight or nine fathom. Being come about the neſſe, then go on ſouth and ſouth and weſt, towards the buy upon ſtar.

Teſſell is a long plaine Iland, whereupon ſtand 4 Churches, the weſtermoſt hath a high ſharpe ſteeple, and is called Weſtend, or S. Johns, but by the Pilots if is called the Weſten, or the Wambus. To the ſouthwards of that ſtand an other harp ſteeple, called the Hoorn. The three is called the Burgh, which ſtandeth ſome what more to the northwards then the other two beforeſaid. The fourth is called the Oogh, or the Koogh, which is the northermoſt of them all, without ſteeple, and is covered with blew flates.

The Eyerland lieth cloſe to the eaſtwards, or to the north- Eyerland. wards off the Teſſel, and faſt to it, when it ſloweth ſomewhat high, it is divided off from the Teſſel by the ſea, and made to an Iland: it ſheweth it ſelfe off at ſea like a low plaine litle Iland with litle hommocks, there ſtandeth upon it no more then a litle houſes.

Huyſdow is a ſhort point off land with ſome white ſand- Huyſdown hils, wherein the greateſt and higheſt is called the kyck-

downe, or Kykersdowne, the next to the fouthwards of it, is called Dirckooms fandhil, further to the fouthwards, they run flat off by litle and litle; and at length to nothing in a flat plaine ſtrand. Upon the eaſt end, called the Helder, lye alſo ſome fandy hills, betwixt the Helder and the kyckdown it is a mooſt flat ſtrand, with ſome fandy hils like a dike, upon which (about halfe way betwixt both) ſtandeth the litle or the outer-mooſt cape, the great cape ſtandeth ſomewhat within the land, about eaſt from the kyckdown.

Huyſdowne, or the Marſdeep and the Maes lie fouth Z. W. ſomewhat ſoutherly, and north northeaſt ſomwhat northerly about 24 leagues a funder. From Huyſdown to Petten the coaſt lieth fouth and by weſt foure leagues. Petten hath a litle Church with a litle ſteeple, and thereabouts you ſhall ſee two other litle ſharpe ſteeples in the Northland. A litle to the fouthwards of Petten lieth the Hondboſch, a league to the fouthwards off Petten lieth Camperdowne, the beſt land to be known thereabouts, the north end is a high ſteep white ſand-hill, which goeth ſloping downe: the ſouthermoſt part is gray and rough, beingh grown over with head, or ſpyrtie graſſe, to the fouthwards off it lie many rough hommockes or ſand-hils, where ſometimes you ſhall ſee amongſt them a white ſpot, ſo that it is very good to be known. From Petten to Egmont upon the ſea, it is three leagues. Egmont upon the ſea is alſo very good to be known, for it hath a thick flat ſteeple, which ſtandeth like a faile. in the ſand-hill, and a litle to the ſouthwards off it you may ſee Egmont within, which hath two high ſteeples upon the Abbey, cloſe one to the other, where off the one is ſharpe, and the other (to wit, the northermoſt) is flat, becauſe the ſpire is lately falne downe. A litle to the northwards off the Abbey ſtandeth another ſteeple off the church upon the old walls, but it is not ſo high as that upon the Abbey: ſoo that upon all the coaſt of Holland, there is no place ſo good to be known as this. From Egmont upon the Sea, to Wyck upon the ſea, are 3 leagues, that is alſo a flat ſteeple: when you are thwart off Wyck upon the ſea, you may ſee Beverwyck a litle to the northwards off it, which is a high, thick, and ſharp ſteeple; beſides that, you may ſee alſo betwixt Egmont and Wyck upon the Sea Caſtricom, and more other ſharp ſteeples. From Wyck upon the ſea to Santford, it is three leagues. Sandfort hath a ſharp ſteeple, with a high fire beakon, a litle to the ſouthwards of it, in the black ſandhill which ſheweth it ſelfe alſo like a ſteeple.

To the northwards of Sandfort lieth a high white ſand-hil, alongſt over which you may ſee Harlem, high ſquare croſſe Church, which hath a high ſharp ſteeple upon the midſt off the Church, and alſo to the northwards off it a high ſmall ſteeple (called Baeckeueffer ſteeple) thwart of it hath the ſteeple (called Baeckeueffer ſteeple) thwart of it hath the ſtandeth a fine beakon. To the northwards off Northwyck upon the ſea, you may ſee Northwyck within, a flat ſteeple, wherupon ſtandeth a litle cap not very high, and upon the midſt off the Church ſtandeth a litle ſmall tower. From Northwyck to Catwyck upon the ſea, it is a great league, being alſo a flat ſteeple, which in times paſt hath had a ſpire: to the ſouthwards of it ſtandeth a high fire beakon, to ſee to like a ſteeple: you may alſo ſee thereabouts within the land (when you are not very farre from the ſhore) Catwyck upon Scheveling ſteeples. From Catwyck to Schevelinghen are 3 leagues, the Quire of Scheveling Church is ſomewhat higher then the Church it ſelfe: in manner at the Hagues Church: a litle to the ſouthwards off that Church ſtandeth alſo a fire beakon. About halfe a league within the land, you may ſee the Church of the Hague, which is very good to be known, the Quire is higher then the body of the Church. The Hagues ſteeple you may ſee far above any other part of the land. From Scheveling to the Heyde it is 2 leagues, and from thence forth to Graveland, or to the north ſide off the Maſſe, one league. The Heyde is a village without a ſteeple: but a litle within the ſand hill, ſtandeth a flat ſteeple, called Monſter. Graveland ſand is a high ſharp ſteeple, very good to be known, which ſtandeth on the north ſide of the Maſe. The Brill is a great flat ſteeple on the ſouth ſide of the Maes. All this coaſt off Holland, from Huyſdown to the Maes, is altogether a clean ſtrand, which men may come ſo neare to as they will, into 4 and 5 fathom.

Petten.

Egmont upon the ſea.

Wyck upon the Sea.

Sandfort.

Nortwyck

Catwyck.

Scheveling

The Hage

The Heyde.

Monſter. Graveland The hill.

Of the Maes and Goerees gat.

For to ſail into the maſe with a ſoutherly winde.

The Maſe is now at this time ſuch a wide or flat broad water with litle altering of depth, wherupon you may ſaile by his winde.

When as the winde is ſomewhat ſoutherly, paſſe then upon the old Markes, that is: (when you come out off the Sea) before you can ſee the Capes, ſet then the tower of the town of the Brief (which is a thicke and ſtump tower without any ſharpneſſe) eaſt ſoutheaſt from you, or ſomewhat eaſterly or ſoutherley, upon condition ſo as you get the Capes in your eye-ſight, bring the ſame then over againſt another litle runne thereupon, or if you bring the tower of the Brief a litle higher by north then the tower of Ooſtwoorn, and that you runne thereupon, you ſhall then, without faile runne upon the utmoſt tunne, which doth lye with low water upon 3 fathom.

From the utmoſt tunne until the ſecond and third tunne, you may ſaile ſtil upon the Capes. The ſecond tunne lieth upon 23 and the third upon eleven foote, being there beſides, then comes the tower of Goeree a litle upon the fooſtrand of the land of the Briel. The fourth tunne lyeth from the third almoſt upon the ſame courſe right upon the Capes, lyeth diſtant from the fourth eaſtnortheaſt, and northeaſt ſomewhat eaſterly. From the fourth until the fifth tunne, by fouth along the tunnes, in the right fare-water, is in deepe 13. 15. 16. and 17. foot, and next unto the fifth tunne 5 fathom. The fixt tunne lyeth from the fifth, eaſt and by north, upon 12 foot, all along there by fouth is it 5, and 6. fathom deepe, and is called the Pit. When you are paſt the fixt tunne, then comes Maeſland-ſluſe, and the tower of Vlaerdingen over againſt another, I old the ſame ſo ſtanding, and runne thereupon, ſo long, untill you get the old Head of the Briel, in the New, you may runne then unto the land off the Briel, and ſo forth along the Southwall, untill you come before the Briel, where you may ſet it. He that will higher upon the Maſe may runne forth all along the South-wall, untill he is paſt the new Slife, runne then againe to the north-wall. From the eaſt-end off Rotterdam borough runnes off a Taile where you may ſaile upon, comming out off the weſt. If you bring not the tower of the Briel (when you are paſt the Heads off Black-wall) without or by north theſe Heads, but doe hold it there by fouth, then you cannot faile there out, but you muſt runne there along a good deale by fouth. Right by eaſt Heen-vliet goeth the old Maſe in, tho flout falles therein very ſtrong, whereof you muſt have a care, not to miſleade your ſelfe upon the Tarwfand, which is a great Sand-plate, and lieth before in the beginning of the midſt off the old Maſe, which doth fall with low water a great deale dry, and ſtretcheth with a long ſmall point weſtward in the Maſe, For to eſcape the ſame, have a care of divers Trees, which ſtand on the ſouth-wall, ſomewhat by eaſt off the Maſe, hold then the tower off Rotterdam by north theſe Trees, then you ſhall not faile upon the Tarw-fand, but if you take this tower by fouth theſe Trees, you ſhall certainly come upon the aforeſaid Taile. By north of the Tarwfand goeth a depth in, wherupon you may ſaile in the old Maſe unto Dordrecht, wherein alſo do lye two tunnes, he that will runne therein, goe upon the aforeſaid markes of the tower of Rotterdam and the foremoſt Trees, ſo long untill the tower of the Briel comes on a houſe off Pannes, which doth ſtand upon the fouthſide off the eaſt-end of Roſenborough, and keepe that ſo ſtanding, then you ſhall not miſſe the tunne. When you are paſt the old Maſe, fayle then in the midſt off the water, till you are paſt Vlaerdingen unto the fifth Sluſes, from thence you take the fouth-wall, and runne thereby cloſe along, untill you are paſt a litle dry Bancke, where you have with low water eleven or eleven and an halfe foot water, comming cloſe by the ſouth-wall, it is deeper, ſtretching thwart over the Maſe, ſo ſoone you are paſt the ſame, goe then right unto the Head off Schiedam, where you have the deepeſt water.

The old maſed

Tarwſand.

If you will goe to Delfs haven, then (being paſt Schiedam) keep the founding off the north ſhore, and run alonſt by it untill you come before the haven, and anchor there. But if you will faile to Rotterdam, then runne alongſt by the N. ſhoare, ſo long untill that Overſchie and the houſe of Spin come one in the other, then edge over, or a litle ſooner into the S. ſhore, and run alongſt by it, or bring the ſteeple off Vlaerdingen (when you are paſt the head of Schiedam) over the third houſe upon the

Delfshaven.

on the Schiedams head, and keep that ſo ſtanding ſo long untill the head Charlois (whereupon ſtandeth a litle wood off trees) come one in the other, and ſo you ſhall leave on the larboard ſide, a litle ſhould plate, that lieth about halfe wayes betwixt Schiedam and Delfs-haven, & runne alongſt to the S. wards of the ſhould that lieth before the haven upon that foreſaid plate remaineth no more then 7 foot water, and upon the ſhould before the haven, but 2 or 3 foot water, & are both very ſteep. When the foreſaid mill, and the head of Charlois come one in the other, then keepe them ſo ſtanding untill that you come thwart of the new head of Rotterdam, faile then towards the Towne, and cloſe alongſt by it, in betwixt the Towne and the plate there you may anckor.

For to fayl into the ſouther channell of the maes.

For to find the ſouther channell (comming in out off the ſea) before you can ſee the capes, you muſt bring the ſteeple of the Brill (which is a thick flat ſteeple without any ſpire or ſharp top upon it) E. S. E. from you, or ſomewhat more eaſterly or ſoutherly, according as you get ſight of the capes; then bring them one in the other, and run ſo right in with them, or els if you bring the ſteeple of the Brill a handſpikes length to the northwards of Ooſtvoorn, and run ſo right in, you ſhall without faile run right of the outermoſt buye, which lyeth at low water in 3 fathom.

From the outermoſt buye to the ſecond an third buye, you muſt faile yet right in with the cape, the ſecond buye lieth in thirteen, and the third in eleven foot, being thwart of it, the ſteeple of Goeree commeth a litle upon the foot ſtrand of the land of the Brill. The fourth buye lieth from the third, yet neere upon the courſe right in with the capes, but a litle more ſoutherly. Betwixt theſe buyes is the ſhowldeſt of the Maes ten foot, by the fourth buye it beginneth againe to bee deeper, that lieth in eleven foot. From without unto the fourth buye, the channell is of a good bredth, ſo that you may turne into windwards a goodways on both ſides off the buyes, and borrow off the ſhoares on both ſides by your lead, but right alongſt a litle to the ſouthward of the buyes, is the perfect deepeſt water. The fitt buye lieth from the fourth eaſtnortheaſt, & northeaſt & by eaſt, on the north ſide of the deepe on the Hondeplate in eleven foot, which you muſt leave on the larboard ſide, and run in about to the ſouthwards off it. From the fourth to the fifth buye alongſt to the fourthwards of the buyes, in the right fareway, it is deepe thirteen, fifteen, fixteen, and ſeventeen foot, and by the fitt buye five fathom. The fixth buye lieth from the fifth eaſt and by north in eleven foot and a halfe, alſo on the north ſhoare, or Hondeplate, along to the ſouthwards of it, the channell is at the narroweſt, and five and fixe fathom deepe, the ſouth ſhoare is thereabides very ſteepe, cloſe to it, it is fixe, and fixe fathom and a halfe deepe. As ſoone as you come paſt the fixth buye, then commeth Maeſland-ſluce and the ſteeple of Vlaerdinghen one in the other, keepe them ſoo one in the other, and runne in ſo right with them, ſo long untill that you get the houſe of Lucht over Ambroeck, and then you ſhall run farre enough alongſt to the northwards of the Polder, and by the ſide of the ſeventh buye, alongſt in the right deepe; you ſhall finde in this fareway, foure fathom and a half, goe then towards the Brill, or upwards alongſt where you deſire to be, as is ſaid here before in the deſcription of the norther channell.

Quacksdeep.

NOTE,

All theſe foreſaid depths, and thoſe which follow of the Goerees-gat, are ſet there (as alſo in the Carde) according to the loweſt water off a common tyde, and it floweth there 6 foot up and downe.

The Goereen-gat.

Betwixt the land of the Brill and Goeree, goe in alſo two channells, the northermoſt is called the Quacksdeep, and is not for great ſhips, but onely for ſmackes, and ſmall ſhippes: the other is the Goereen-gat. Betwixt theſe two channells lieth a great plate, called the Hinder, whicha t low water is deeper then five, ſixe, and ſeven foot. To the northwards of it goeth in the Quacksdeepe, and to the ſouthwards off it the Goereesgat.

For to finde the Quacksdeepe comming in out of the weſt, you muſt keepe the ſteeple of the Bril eaſt from you, and run ſo in, untill that a great country houſe, (which you ſhall fee ſtand alone a litle within the point off the Quacke) come to the ſouthermoſt ſand-hills off the land of the Brill, which ſhall then ſtand neare about ſoutheaſt from you, keep that then ſo ſtanding, and runne ſo right in, untill that Oolvoorn come to the weſtermoſt or ſouthermoſt land hills, then runne in alongſt by the ſtrand ſomewhat more ſoutherly, untill that Goeree com to the eaſtwards or within the ſaid hills, and then you ſhall bee paſt the eaſtpoint of the Hinder, which the Pilots call the Buyen, runne then towards Goeree, or to the eaſtwards, to Hellevoets fluce, where you deſire to be.

For to faile in at the Goerees-gat, you muſt bring the ſteeple of Goerce, and the Cape upon the land of Goeree, one in the other, and then they ſhall ſtand eaſt and by ſouth, and eaſt ſoutheaſt from you: or if you can not ſee the cape, then bring the ſteeples eaſt and by ſouth, or eaſt ſoutheaſt from you, according as you ſhall have the winde, faile in right with it, untill you come hard aboord the ſtrand, and within and bawles caſt in alongſt by it, eaſt and by north, & eaſt in, ſo long until that the land doe fal away more to the ſouthwards: thereabouts runneth off from the ſhoare a litle faile which men might faile within, in going out, but not in coming in, there you muſt edge a litle further off from the ſhoare, being paſt that, ſuffe up againe towards the ſhoare, or haven of Goeree, & anckor there before it, or els if you will run up to Hellevoet-ſluce, then bring the mill which ſtandeth to the weſtwards of Goeree, a litle to the northwards of the ſteeple of Goeree, keepe them ſo ſtanding, & faile ſo up to Hellevoet-fluce, & you ſhall come neare the plate which lieth over againſt or to the ſouthwards of Helle-voet-fluce.

Goerees ple of Goerce

For to ſail to Hellevoet-fluce

When you faile it at the Goerees-gat with a bare ſoutherly winde, & that you can not bring the cape & ſteeple one in the other, you may bring the ſteeple well e. f. eaſt, or a great capſtone bars length to the notthwards of the cape, & then run over untill you come againſt the ſtrand, and ſo you ſhall runne over the tayle of the Hinder in 14 & 15 foot at low water, but when the cape & ſteeple are one in the other, you ſhall not have leſſe then 19 or 20 foot. Being come over the taile of the Hinder, in the right deepe, it is 6, 7, & 8 fathom deepe, the neerer the ſtrand the deeper water. A litle within the cape, or almoſt thwart of it, is the narroweſt of the channel further in it is wider, on the n. ſide towards the Hinder, it is riſing ground, but the ſouth ſhoare alongſt by the ſtrand is very ſteepe.

Off the tydes and courſes off the ſtreams, about theſe fiveſayd places.

Vpon the Wieringen-flat maketh full ſea at ſouthweſt or northweſt moone.

Before Teſſel, in Coopvaerders road, an eaſtſoutheaſt, and weſtnorthweſt moone.

Without the groundsoor ſhowlds of the Teſſel, an eaſt and weſt moone maketh the highest water, and in the entring of the Teſſel, an eaſt and by ſouth, and weſt and by north moone: but the flood goeth a good while longer in. And likewiſe runneth the ebbe alſo longer out, then the lowell water. When the moon is ſouth, or ſomewhat more welterly, it beginneth apparantly to flow without on the ſtrand, and likewiſe upon the ſhowlds.

The fore-flood, and the after-ebbe out of the Teſſel, fall both one with the other n. n. e. thwart over the grounds and channels, and right out at the Spanjards channell, until halfe flood: and to contrary, the fore-ebbe, with the after-flood fall right in at the Spanjards channell Southſoutheaſt over the ſouth grounds, and thwart over the ſame channell, and ſo until halfe ebbe. A litle while before halfe flood, the flood beginneth to runne right in at the channell, and againe a litle before halfebb, the ebbe beginneth to ſet right out at the channell. Therefore he that will fayle into the channels, muſt reckon his tydes very wel, wherein conſiſteth very much. Without before the channell in the ſea, the ryde runneth about with the Sunne, ſo that when as a ſhippe doth lye at an anchor without the channels, and hath neither good nor hure of the waves of the ſea, it ſhould have but a litle ſtill water.

In the north ſea the tyde falleth round, more then halfe a cyple, upon the broad foure cens, it turneth about with the Sunne or the moone, and falleth but a quarter tyde right alongſt the ſea. Neater the coaſt of Holland and Zealand, the tyde falleth (whether it be flood or ebbe) ſomewhat ſloopingh towards the land, but in the midſt of the tyde, it falleth right alongſt the ſea, and in the halt of the tyde, it ſetteth to ſeawards, towards the weſtwards or the northwards.

Betwixt the Marſdeepe and the Maes in the fareway, the fore-flood commeth out of the north ſea, and turneth about with theſmo one, falling towards the land northeaſt, and northeaſt and by north.

The ſame men of the Maes ſay, that when they are out of ſight of the land, they can perceive in calme weather by the turning about of the tyde, whether they be to the northwards or to the ſouthwards of the Maes. Somewhat to the ſouthwards of the Maes, tha afterflood runneth about againſt the Sun, but to the northwards of the maes, it turneth about with the Sunne until the 1st quarter, and then it ſetteth towards the ebbe, or the coaſt next unto it. They ſay alſo, that alongſt the coaſt of Holland, men have no helpe of the ebbe in turning to windwards towards the maes, except they will ſhoote right off the land, becauſe there goe no ebbes by the land, when the wind is to the ſouthwards of the weſt.

Before the Maes a ſouthweſt and by weſt, and a northeaſt and by eaſt moone maketh a high water.

Before the Brilla ſouthweſt and ſouthweſt and by ſouth, and northeaſt, and northeaſt and by north moone.

Before the old maes a S. w. and n. e. moone.

Before Rotterdam a ſw. and by w. and n. e. and by e. moone.

Before Dordrecht a weſtſouthweſt moone.

In the Goerees-gat, & before Goeree, a ſ. w. & by ſ. & S. ſ. w. moon.

Before Hellevoet-fluce a S. w. and by ſouth moone.

Betwixt the Marſdeep and the Maesin the fareway, the foreflood commeth out of the north ſea, and turneth about by little and little n. e. and n. e. and by north towards the land.

In the ſea thwart of the places, (without ſight of land) it is a point, a halfe point and a halfe later ſtill ſea, the further from the land the later.

Not very long after that the flood beginneth to go without the maes, it doth begin alſo to go into the maes, but the after-flood falleth ſtrong in, and ſo likewiſe in the Goerees-gat. Cloſe before the channels by the land, the tyde turneth about with the Sunne, ſo that when the after-flood falleth into the channels, it turneth to the ſouthwards, and bekommeth againſt a runningh ebbe: the afterebbe falleth againe thwart of to ſeawards out of the channels.

Of the depths & grounder about these plates.

Five or six leagues without the Tessell, lyeth the broad foureens, lyingh from thence N. eastwith a small tayle which lyeth about north from the Tessell, and N. W. from the Flye, to the southwards it runneth with the east side against Catwijck or Scheveling, but the west side lieth off at least 11 or 12 leagues thwart off seawards from Northwyck and Catwyck, it is a banck most of fourteen fathom deep, in some places somewhat more or lesse. Betwixt it & the land it is against 18 and 19, and to the northwardes as fathom deep when you come over it about the Tessel or the Flye, and come againe in 16 or 17 fathom towards the land, then you shall begin to see the land.

There runneth of to the southwards into the sea from the coast of Holland 3 smal baackes or ribs es, which are somewhat broad & showld by the land, & run off sharp & deepe to the end, the first the fishermen call the Smal-eithit, and begin neth a little to the southwards off Egmont upon the sea, the second the wtterrib thwart of wyck upon the sea: the third and southermost the Hard, a little to the northwards of Sant-foort.

The high steeples of Holland and west-Friesland, as Egmont-within, wyck upon the sea, Sandfoort and other more, men may see before they can see the sandhills five leagues without the land, in 14 or 15 fatkom, that is upon the southend of the broad foureenes, but Camperdowne, and the sandhils thwart of Haerlem, they may see before they can see some of the steeples the people alongst the coast are most of them flat, except Beverwyck, Schevelinghen and Santfoort.

Before the Maes and Goeree men may see the land in 14, and 15 fathom.

Courses and distances.

From Tessel to the Maes, S. S. W.	——— ———	24 leagues
From Tessel to the Heads, or the Strait between Callis and Dover, somewhat southerly	———	S. W. 58 leagues
From Tessel to Marsdiep to Callis cliffe southwest and by south	———	52 leagues
From Tessell to the North foreland S. W.	———	48 leagues
From Tessel to Orfordnesse W. S. W.	———	37 leagues
From Tessel to Yarmouth west, and west and by south	———	33 leagues
From Tessell to the Shield, or Crommer west	———	40 leagues
From Tessel or Marsdiep to Flamborough head westnorthwest	———	60 leagues
From the Marsdiep to Lieth in Scotland N. w. and by w. somewhat northerly	———	100 leagues
From the Marsdiep to New castle w. N. west somewhat northerly	———	85 leagues
From Tessel to Rockneese northwest, and N. west and by north	———	217 leagues
From the Marsdiep to Aberdine N. w. somewhat northerly	———	213 leagues
From the Marsdiep to the Lier of Berghen in Norway north	———	117 leagues
From the Marsdiep to the north end of Hitland N. N. west	———	160 leagues
And then you shall fall about five leagues to the eastwards of the land.		
From the marsdiep to the Naze north and by east	———	93 leagues
From the Naes or Goeree to Dover, southwest and by west somewhat easterly	———	85 leagues
From the Maes to the north Forland, westsouthwest westerly	———	32 leagues
From the Maes to the Naze, west	———	29 leagues
From the Maes to Hitland northnorthwest	——— ———	184 leagues

Heights.

The marsdiep lieth in three and fifty degrees, fayle out of the north sea, (being in that height) east on, and you shall fall right with it. 52 degrees.

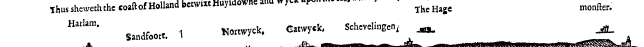
The north side of the Maes lieth in

How these Lands doe show themselves at Sea.

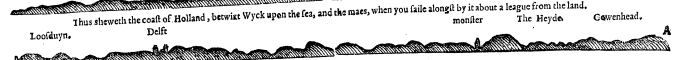
Thus appeareth the Iland Tessell, when it lyeth east and by north from you.

Huysdowne sheweth it selfe thus, when it is eastsoutheast from you.

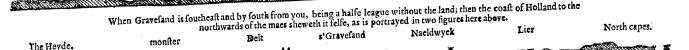
Thus sheweth the coast of Holland betwixt Huysdowne and Wyck upon the sea, when you sayle alongst by it, about three leagues from the land.



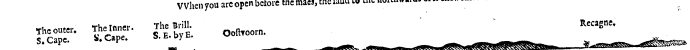
Thus sheweth the coast of Holland, betwixt Wyck upon the sea, and the maes, when you saile alongst by it about a league from the land.

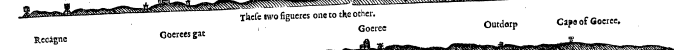


When Gravesand is southeast and by south from you, being a halfe league without the land; then the coast of Holland to the northwards of the maes sheweth it selfe, as is portrayed in two figures here above.

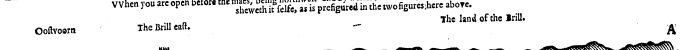


VVhen you are open before the maes, the land to the northwards of it sheweth it selfe thus.

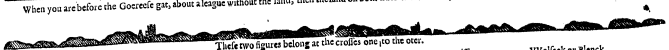




VVhen you are open before the maes, being northwest and by west from the Brill, then the land to the southwards of the maes sheweth it selfe, as is prefigured in the two figures here above.

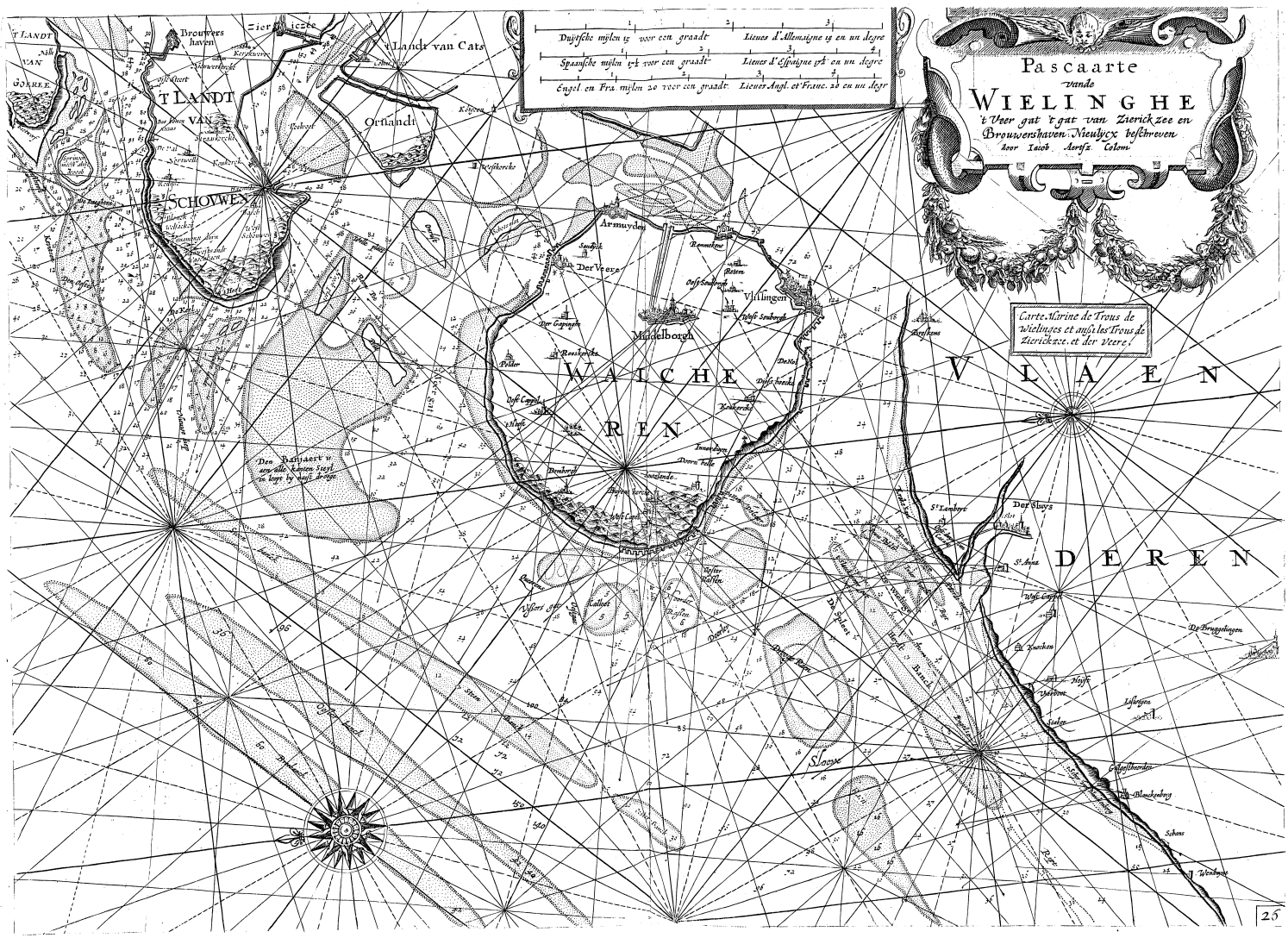


When you are before the Goereese gat, about a league without the land, then the land on both sides of it sheweth, as is demonstrated in the three figures here above.



The land of Goeree sheweth it selfe, as is portrayed in the two figures here above, when the cape and steeple come one to the other, and that you are a league and a half without the land.

The


Pascaarte
vande
WIELINGHE
't Veer gat 't gat van Zierickzee en
Brouwershaven Nieulycx beschreven
door Iacob Aertsz Colom
Carte Marine de Trous de
Wielinges et aussi les Trous de
Zierickzee et der Veere
Duytsche mijlen 15 voor een graadt
Lieues d'Allemaigne 15 en un degre
Spaensche mijlen 17½ voor een graadt
Lieues d'Espaigne 17½ en un degre
Engel. en Fra. mijlen 20 voor een graadt
Lieues Angl. et Franc. 20 en un degre
't LANDT VAN SCHOUWEN
't Landt van Cats
Ortlandt
Brouwers haven
Zierickzee
Veere
Middelburgh
Vlissingen
Armuyden
WALCHEREN
VLAENDEREN
Den Ratsaert
Sloepe
Der Gloys
Blanckenberg
Schans
Wenduyne

The second demonstration,

Wherein are sheweth the Channells off Brewers-haven, Sierick-sea, the Veer, as also the channels off Zealand, in the Wielsing.

BEtwixt the land of Goeree and Scowen, there goe in also two channels, the northermoft is called the Kevitsen (which is onely for small ships) the southermoft for great ships is called the Brewers-havens channell. Betwixt them lyeth a great dry-sand, called the Springer, which floweth not under, but with very high floods.

Kevitsen. For to finde the Kevitsen, you muft bring the fteeple off Zierickfea southeaft and by fouth, or a litle more foutherly from you; and then you fhall efpy upon the land of Scowen, about the fteeple of Zierickfea, a wood of trees, bring that and the foresaid fteeple of Zierickfea one in the other, and runne fo right untill you come againft the fand, fo fhould or neare as you can, and then you run farre enough alongft to the Weftwards of the weft head. When you come within the weft head, againft the fand on the fouth fide, then goe in eaft alongft by the foresayd dry fand the Springer, at the end of the aforesaid dry fand fhooteth off alfo a point under water, the which you muft found for: being paft that, runne then directly with Brewers-Haven, as is fhewed in the Card. In this channell it is upon the fhouldeft ten foot deep.

The Brewers Haven.

Before the land of Schowen thwart of the Brewers haven channell, lye three banckes, the outermoft, called the Breebancke, lieth a kenning without the land, upon which it is 7 fathom deep, and again within it 19 fathom deep, upon the fecond nearer the fhoare, it is five fathom deepe, and againe within it 7 fathom deep; the third called the Oofter, lieth clofe by the Land, and runneth into the eaftwards, betwixt Schowen and the land of Goeree, upon it is no more then fix foot Water, when you will faile into the Channell of Breuwers-haven, you muft goe about to the Weftwards of it.

Upon the weft end off Schowen ftand two Capes, bring them one in the other, and runne fo right in with them, untill the fteeple of the Reniffe (which fteeple is fomewhat fharpe) come to the Blenck or Wolfack, that is, a high white sand-hill, (which fheweth it felfe out in whiteneffe high above all the other Sand-hills) then leave the Capes, and runne in by the marcks of the Blencke and Reniffe, untill that Outdorp, (a little white fteeple upon the Land of Goeree) come to the fteeple of Goeree, and fo you fhall go in betwixt the Ooster of the larboard fide, and the Hill on the ftarboard fide, and alongft a little to the fouthwards off the outermoft buye, untill you come within the Ooster. When that Outdorp and Goeree are one in the other, then leave alfo the forefaid marckes of Reniffe, and runne in right with Goeree, untill that you come by the fecond buy; or (if there lye no buyes) untill that the Bommenee come a little without the Oxetayle, that is a point off Schowe, lying out a little to the Weftwards of Brewers-haven, faile fo right in untill you bee paft the Brewers-haven. This Channell off Brewers-haven, is a broad and deepe Channell, very convenient for great fhips, he that muft turn in or out to windewards, may runne alongft a good wayes on both fides, as well of the outermoft as of the fecond buy, but to the fouthwards off them it is deepeft, and the common fareway. The third buye is a buy with a tayle, and lieth upon a point off a taile which of from the Ooster, which you may not goe to the northwards off, untill it were very clofe alongft by it: all alongft by the ftrand of Schowen, it is deepe and fteepe, you may runne clofe bit it from the outermoft buye unto Brewers-Haven, there is nothing that can hurt you, the fhouldeft off this Channell is eighteen or nineteene foot, at leaft a league without the land in the comming in betwixt the Ooster and the Hill. Further inwards it is foure, five, fix, and feven, and at fome places ten and eleven fathom, as it is fhewed in the Card by the numbers of Feet, and all at low water.

Reniffe Wollack.

The Keel, the Newdeep, the Velt, and the Roompot.

Men may run into Zierickfea through divers Channells, through the Keel, the Newdeep, the Velt, and Roompot. For to faile through the Keele, then run in as is before faid of the Channell of Brewershaven firft in by the marcks off the Blenck and Reniffe, fo long untill that Ter Veer come to the weftermoft point of Schowen, called the Hoot, keepe them one in the other, or to the other, and run fo in untill you come by the ftrand, and then forth by it, and you fhall find fo in the Kell at the fhouldeft, 18 and 19 foot, & comming againft the point of the Hoot, foure and five fathom. Betwixt the Hoot and the New-fand (which falleth at the eaft end at fome places dry) run all alongft by the land of Schowen, untill you come thwart of the fouthermoft cape off Schowen, edge then fomewhat off from the fhoare towards the Banjard, for to avoid a Share which lieth off from Schowen, which you might faile within when you come out off the fea. There lieth a buye upon the point; whereby it is good to beknown: being paft that, run all alongft by the fhoare untill you come to Zierickfea; fomewhat within the buye, upon the point off the Share there is lately laid another litle buy for thofe that wil faile that wayes out, for that they may not faile upon the eaft fide off the forefaid Share.

The New-deep. For to faile in at the New-deepe, you muft looke out for two ftone fire-beakons, ftanding a little to the fouthwards off the foresaid capes off the Channell of Brewers-haven, bring the innermoft a handfpikes length to the fouthwards off the outermoft, and runne then right in with them, and then you fhal runne in betwixt the Hill and the New-Sand in fixteene, 17, and eighteene foot, goe in alongft by the foresaid markes, untill that you come by the ftrand, and then you come into the Keele. If you bring the fire beakons one in the other, and faile fo right in, you fhall then runne over the taile of the Hill in eleven or twelve foot. The Hill is a land fomewhat flat, which men may come neare to the fouth fide by thier lead, but the Newfand is very fteep, and the fea breaketh very much upon it. When as that you come in by the ftrand into the Keel, then run in alongft by the ftrand, as is beforefaid in the defcription of the Keel.

The Velt. For to faile in at the Velt, you muft obferve thefe marks here under defcribed: almoft upon the fouthermoft end of Schowen ftandeth a Tower alone in the field, with a cape upon it, called Weftfchowen, bring that Tower a capftone barres length to the fouthwards off the forefaid fouthermoft cape off Weftfchowen and runne fo right in, and then you fhall runne through betwixt the Newfand and the Banjard, and fhall finde upon the fhoulder (thwart off the outermoft point of the Newfand) twelve and fourteene foot, being paft that, there will be againe fifteene, fixteen, and eighteen foot, and by the ftrand twenty foot deepe. When you come in by the ftrand, runne all alongft by it untill you come even to Zierickfea, as here before is faid or the Keel, and Newdeepe. When you runne in at this channell, you muft take very good heed of the Banjaerd, which is very fteepe upon the north fide; clofe to it, there is three, foure, and five fathom, but thwart of the foresaid ftrand, which lieth of from Schowen fixe and feven fathom deepe. The Newfand is indifferent flat on the fout fide, that you may borrow of it by your lead.

Veer-gat.

He that will faile into the Veer-gat, comming out of the Sea, hold Middelborgh a fhips length by weft eaft-chappell; this is yet of the north-Cats, and when you doe fee Sortgeen, hold it alwayes a fhips-length more foutherly then Cats, for the towers may not come over againft each other, without comming to clofe by the Banjart, where of you muft have a care, for the for a floud falleth there croffewife over a long the Banjart, which is a fteepe, fhallow, and very dangerous Sand.

For to faile out off the Veergat, you muft have a care of the prifon tower, which you may not bring by north the tower that ftands at the head, or elfe you fhould come to fall upon the Plate which lieth over againft the Leverhoufe, for before the Lever-houfe is it verry narrow, and thereby runneth a kreke, through which the ftreame falleth ftrong, the ebbe as well as the floud, the ebbe towards Schouwen and the floud towards Walcheren; you muft hold alwayes Gortgeen a fhips length more foutherly then Cats, then you doe come on the firft Tunne, goe fo forth from Tunne, to Tunne, till you doe come unto the third and laft, you may doe no harme on the Land off Walcheren; about the Polder lieth a little Plate, called the Scots-man, though there upon lyes a Tunne for a warning; the moft depth is by fourth the runne, alfo with a fharp winde you muft have a care off the Roompot, for the floud goeth very ftrong unto the Roompot, hold it all along clofe behinde

behinde the land; it is there deepe enough, till Middelborgh comes in eaſt chappell, goe then weſt-northweſt in Sea, till without the Stonebench; comming out of the Weſt, and that you will be into the Veergat, bring then Domborgh by eaſt the watch-houſe of Domborgh, for to eſcape the Querens, hold then upon the land on, it is on the wall cleane and deepe, and you may runne there ſo cloſe by as you pleaſe; theſe Querens doe lye within the Reuteel, and is with low water 4 fathom deepe; or if you doe come from Flushing out of the Botkille or Fiſhere-gat, or the Deurloy, or otherwiſe out of the weſt, doe not come then ſo cloſe by the wall, when as you doe not ſee the watch-houſe of Domborg, or make well upon the wood of Weſthoven, & upon eaſtchappell: When as you can ſee through betwixt weſt-hoven and eaſt-chappell then are you free of the Querens, geere then the wall free, betwixt theſe querens and the land, there runneth yet a land-deepe, but is very narrow, you muſt runne ſo cloſe by the wall, that the land ſea doth almoſt breake on you, it is not fit to runne with common ſhips through this place, except it were in time of great neceſſitie, for theſe Querens are very hard.

He that will take on theſe lands, muſt not ſpare his lead, for by the difference of the grounds he ſhall finde out whereabout hee ſhall come to tall, although he is without the ſight of the Land.

If you doe come to fall before the Maſe, you ſhall meete there a long flatneſſe, which is deep 13 and 14 fathom, when as the Maſe is ſoutheaſt and ſoutheaſt and by eaſt from you, and it dreyeth up by little and little, yea by an halfe foot at once.

If you doe come to fall before Goeree then you ſhall meete no Bankes but ſome over falling, with great raveling, though they are reaſonable deep, 13 and 14 fathom, and then is Goeree ſoutheaſt and ſoutheaſt and by eaſt from you. Schouwen upon the wrong ſide that is Reinſt by eaſt the blenke, and the Cape eaſt from you, and then are you open before the Brewerhavens gat, and alſo from the keele unto Zierickſea. Comming out of the Sea, and that you doe fall here, you ſhall meete then the Stonebanke upon 6 fathom, you may be ſure thereby that you have Schouwen upon the wrong ſide, there by north doe meete no Bankes, and ſomewhat weſterly you ſhall finde it to be dryer.

Comming out of the Sea, and that you come to fall thus: that Middelborgh is in eaſt chappell or a litle there by eaſt or there by weſt, you ſhall meete there 3 Bankes, firſt you doe meete Broad-banke, there you ſhall finde not leſſer then 10 fathom water, but thereon within it is againe 20 fathom deepe, this Broad banke lieth about a mile from Stonebanke Seaward, the ſecond is eaſterbanke, and it is there 6 and 7 fathom deepe, and doth lie betwixt Broadbanke and Stonebanke, though Broadbanke next, and ſtretcheth along theſe whole coaſt, and thereon within is it againe 17 and 18 fathom deepe.

About an halfe mile within thereon you doe meete Stonebanke you ſhall finde there no more then 3 fathom water, and theron within is it deepe againe 10 and 11 fathom.

Comming out of the Sea, and that you doe fall upon weſtchappel, and that weſt-chappell is ſoutheaſt and ſoutheaſt and by eaſt from you, there you ſhal meete theſe foreſaid 3 Bankes: firſt, Broad-banke, which is there deepe 6, 7, and 8 fathom, and thereupon within it is againe 17 and 18 fathom deepe. The 4 Weeden is Oofterbanke, the ſame is there 6, and 7 fathom deepe, but within thereon is it againe 24 and 25 fathom deepe, and there you doe meete Stonebanke, ſo ſteepe that it is not poſſible to leade thereon, for with one caſt you have 12 fathom, and with another caſt you have but 2 fathom, ſometimes 13, 14 and 15 foot water, here is the moſt dryneſſe; then ſtandeth Middelborgh by weſt Domburgh in the Roggen loa, and is alſo very dry and deepe; Being over Stonebanke, and that you come thereon within, you ſhall finde there againe 21 and 22 fathom. Sealand may be ſeene, when you ſtand above upon the ſhip, upon 16 and 17 fathom, againſt Walcheren doth fall a third part of the ſloud towards the Land, and afterwards eaſt and by north.

When as you come to ſal out of the weſt, ſo that Boeyens-Church ſtandeth by weſt, or on Church of weſtchappell, there you ſhal find alwayes harde ground, and Ras up Raſſe upon 23 and 24 fathom, till you come right againſt the Raen; the firſt ſtekeground, which you begin to eſpy, is cloſe by the Raen; Middelborgh on the downe or about halfe way the Sconce and the doune, or a doune or two inward, there you ſhall finde all over ſtekeground, till unto the Raen.

Brugge comming by weſt the Staker or in Liſwegen, you have there all hard ground, till upon 8 and 9 fathom, there you doe come in the faire field where the Sealands Fiſhers doe fiſh, and is all ſtekeground.

Brugge in Liſwegen, comming out of the ſea, then you ſhall meete there Rever, deepe 8 and 9 fathom, there betwixt is a litle difference, but alwayes hard ground, till unto the ſmal Banke, there you ſhall finde no more then 5 fathom water, ſhee is very ſtraight or narrow, and ſo you ſhall in the Eaſter

The Flemish coast from Wendowne through the Heads,

the point: If you finde to be good to chap off your ancker, ſtay then ſo long (if you can) till the flood goeth right; this foreſaid Reuteel gives you a Warrant to have a care of the Querens, for the Querens doe lye within this Reuteel.

The Flemish Coaſt.

Flanders is a douny land, and full off little hils, with many towres along the Coaſt, ſtretcheth almoſt weſtſouthweſt unto Calis.

1. By Weſt the Sluys-gat comes a Tower, and is blunt and thick, called S. Anna.
2. Is knocke a ſteepe or ſharpe Tower.
3. Is Weſt Chappell, which is a blunt Tower with a blunt Cappe thereupon.
4. Is Heyit, a longſt ſteepe tovver, higher then knocke.
5. Is Liſwegen, a thicke blunt Tovver, the thickeſt there about. Betwixt Liſweghen and Blanckenbergh have you the gollow ſheerde.
6. Blanckenbergh is alſo a thicke Tower, higher then Liſwegen, but not ſo thicke.
7. Bruggelingen are two high ſteepe Towers, which doe lye into the land thereupon followeth the Sconce of Blanckenbergh.
8. Is Wendoune, a thicke blunt Tower, without a Cape, right contrary all former deſcriptions of the Sea-bookes.

Of the tydes and courſes of the Streams.

Before Brewers-haven, a ſ.ſ.w. and n.n.e. moone maketh high water.
In the Channell of brewers-haven a fourth and by weſt moone.
At Tevveer a ſ.ſ.w. and n n.e. moone.
In the Veer-gate a fouth and north moone.

It is not good to runne in at Veer-gat, eſpecially with a foutherly or fouthweſt wind, before that the flood be halfe ſpent, for the after-ebbe, and the fore-flood fall thwart over the Baniaert hard in at the Roompot, towards the land off Schowen, but when the floot is halfe ſpent, then it falleth right in at the Veer-gat. When the moone is ſoutheaſt, or northweſt, then the water is three alleadg two third parts flowen.

Like as it is here before ſaid of the Maſe and the Geerees-gat, ſo alſo here before the channells of Brewers haven and Ter-Veer the flood turneth about with Sunne, ſo that the after flood falleth in the channels, and then afterwards turneth about to the ſouthwards, and becommeth a running ebbe, but the afterebbs fall right out at the channels thwart into the ſea, And then with the fore-flood about againe to the northwards.

Before the Wielings a fouth and by weſt and a fouthſouthweſt moon maketh the higheſt water.

At Flushing and Ramekens a ſouthſouthweſt moone.

At Weſt Chappell on the land of Walcheren, a fouth and north moone maketh high water. When the water is a halfe houre fallen, then the tyde beginneth to fall out there, and when it is flowen a halfe houre, it beginneth to fal in: but before the Bockill it beginneth to goe there firſt an houre before the lowreſt water, but it falleth long at ſea. In the Spleet, & over the ſhowlds lying thereabouts, the tyde turneth about againſt the Sunne, & at laſt falleth in at the channels. A ſouth and north moone maketh there the higheſt water. The fore-flood falleth over the ſhowlds there towards the land. When the moone is about eaſtſoutheaſt, or that the water bee about two houres flouwen, then ic beginneth to turne towards the ſouth. firſt ſouthſouthweſt, and then paſt the ſouth towards the eaſt, untill that the moone be ſouthſoutheaſt, and then the flood falleth to the eaſtwards. When blanckenbrough ſtandeth about ſoutheaſt and by eaſt from you, from thence to the eaſtwards, you ſhall not finde the tydes to turne about.

Againſt Sealand in the fare way a third part of the flood falled towards the land, and afterwards eaſt and by north. Men may ſee Sealand from the poope in 16 fathom.

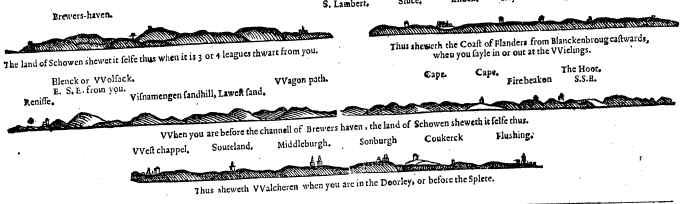
Courſes and Diſtances.

From Flushing to Blanckenbrough neareſt weſtſouthweſt —— 9 leagues
From Blanckenbrough to Oſtend ſoothweſt and by weſt —— 2 leagues
From Blanckenbrough to the north Forland, w. ſomewhat ſoutherly —— 25 leagues
From Flushing to the north Forland, w. ſomewhat ſoutherly —— 26 leagues
From the Wielings to Dover weſtſouthweſt —— 30 leagues
From the Wielings to Layt-ſtaffe or Yarmouth, northweſt and northweſt and by weſt —— 30 or 40 leagues

Heights.

Flushing, Rammekens, and the ſouth coaſt off VValcheren lye neare in 51 degrees and a halfe.

How theſe Lands doe ſhew themſelves at Sea.



The third demonſtration,

Which unfoldeth,

The Coaſt off Flanders, from Wendowne to the Heads about Treſport, together which the Coaſt off England, the Promontory of Dover, and from Dover to Fierley.

BEtwixt Wendoune and eaſt ende lyeth alſo a little ſteepe Tower, called Ian Davids little Tower.

Afterwards followeth the Tovvne off Eaſt-end, and hath a little ſteepe tovver. When Blanckengergh is e. ſ. e. from you, from thence E. ward begins your running of the ſtreames, ſtretchet againſt the Sunne for to turne, but from thence Weſtvvard you ſhall finde no moore turning ſtreames.

Of the Flemmiſh Banckes.

The ſand

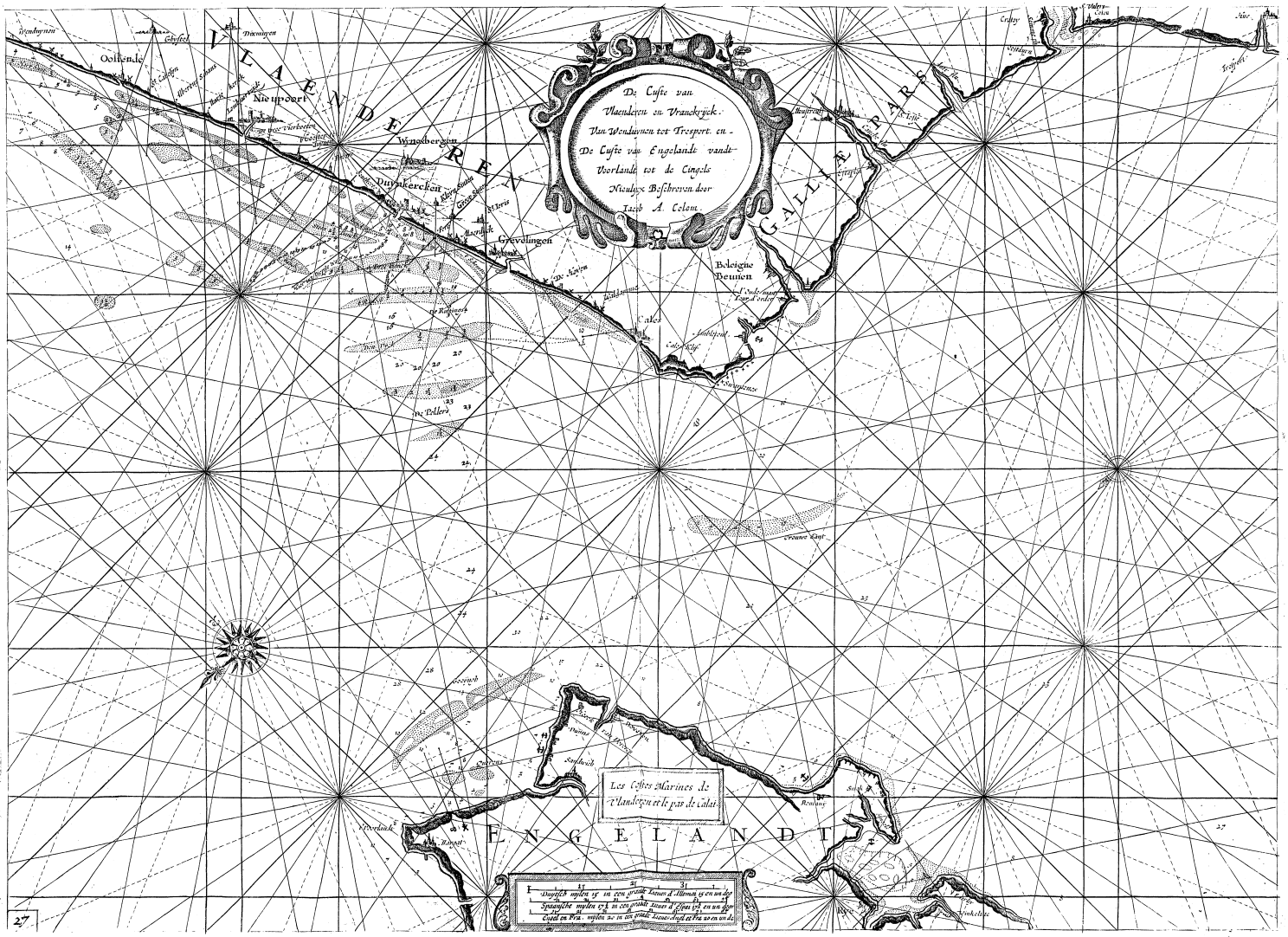
All the Sands which doe lye betwixt the hole of Slufe and Calis, are called the Flemmiſh banckes; whereof the firſt is the Sand, being very hard ſand, from the Horſe-marketh upon 2 fathom, and ſtretcheth ſo along the coaſt upon 3½ three and 2½ fathoms till you are paſt Ooſt-ende, there is ſouthward betvvixt the land and the Bancke 4, and 4½ and 5 fathom vvater, by north is the right farewater, from the Wheelinghs, called the Kute, there is vvith low vvater 5, 6, and 7 fathom vvater; about a league and a halfe, thwart from Oſtende liet the Rip or utmoſt Bancke, there is no more then 4 and 3 a halfe fathom vvater, upon Geeſe, on the Eaſt end of the towne of Ooſtend, and about halfe way unto Liſwegen, betwixt the Downes and Blanckenbrough, you are then upon the Rip. Kute. The Rip.

Betwixt the Rip and the land lye alſo two little plates, of 3 and 2 a halfe fathom.

Before Oſtend begins a Bancke, which ſtretcheth a long the Coaſt till before the Haven of Newpoort, thereupon is 2 and 2 a halfe fathom vvater, betvvixt the land and the Bancke is it 4, 5, 6, and 7 fathom deep.

Thwart off by north theſe bancke lieth Beane-land of 2 fathom water, and upon ſome places 2 a halfe fathom, there by Weſt, and right under New-port, lyeth the Strooms off two Strooms, and three fathom. Beaneland

By eaſt of Newport goet a little Riffe from the wal, whereof you muſt take good care. Betwixt Dunkerck and Newport doe lye 6 bankes; whereof the firſt is called Brothers banke,


De Custe van
Vlaenderen en Vranckrijck.
Van Wenduwen tot Treport. en
De Custe van Engelandt vandt
Voorlandt tot de Cingels
Nieulijx Beschreven door
Jacob A. Colom.
VLAENDEREN
GALLIE PARS
ENGELANDT
Les Costes Maritimes de
Vlandre en et le pas de Calai
Wenduwen
Oostende
Nieuport
Duynkercken
Grevelingen
Calais
Boulogne
Wenckelsea
Dunsch mylen 15 in een graede
Spaensche mylen 17½ in een graede
Oudt ta Fra. mylen 20 in een graede

banke, and is of three hookes, lieth next the Brothers and the Clotter at the Downes and very close by the land, stretcheth off from the wall, about westnorthwest a league in Sea, you may runne through betwixt the Brothers banke and the land upon 4 and 5 fathom with low water, but you runne there commonely round about westwards, when as you saile along Flanders, within through the Bankes.

Cams. The second is the Cams, which doth lie by west the Brothers Banke, the same is 3 fathom deepe, on several places of 2 and 1 ½ fathom; you may make Road betwixt the land and these Banke upon 7 and 8 fathom for all windes.

Norther-cams. If you doe runne by north the Cams beyond the west, you runne then against the Killen, or on the norther Cams, there is ¾ fathom water, as also on severall places not so much, and a little by west there you have the Brake, which stretcheth in a Bight from the norther Cams, till you are close on the Splinter before Dunkerke, so that you runne so much west as by east, thereupon is 1. 1 ½ and 1 ¾ fathom water, but upon the west end is it deeper, so that with low water there is three and

The brake four fathom; depth within the Brake is it tenne and eleven fathom deepe, there runnes a Cloave through of 12 or 10 foote deepe.

Smalbanke. By north the Cams and by east the norther Cams, lieth the Small Banke of 2 and 3 fathom water, but upon the Tailes is it above 4 fathom deepe, betwixt the Small Banke and the Cams it is wide and broad, there is 8 and 9 fathom depth.

Stone-bancke. By north the Small Banke lieth the Stone Banke; which hath on the east-side an hooke, and stretcheth almost till you are past New-port, is on the west side three and four fathom, and upon the southerly Taile of the hooke on the east-side 3 fathom, on the norther Taile of the hooke 1 ½ fathom deepe; on the north-side lieth a Raffe in the stone banke of 3 foot water, betwixt the Smal-banke and the Stone-banke is 8 and 9 and 7 fathom water, and is reasonable broad betwixt both.

Kalbancke Calbanke lyeth by north the Stonebanke, and is in the midst 2 fathom, and upon the Taile 6 fathom deepe, in the midst of the Cal-banke lieth a little Banke, which is called

Little smal-bancke. little Smal banke, thereupon is but 3 foot water, betwixt Stonebanke and Cal-banke is it very roome, you have there 10, 9, 8. and againe 7 fathom water, stretcheth with the east-taile un-

Trop-zeel. to the utmost Banke, Cloave betwixt both is called Trop-zeel, which is the right fare-water to runne beyond through betwixt Beaneland and Stream, there in the fare-water is it 12, 11. 10, 9. 7. 6 and upon 5 fathom deepe.

By north the Calbanke lieth also a great Banke of 8. 9. and 10 fathom, whereupon doe lay some Raffes off 5 and 6 fathom water.

There doe lie also 5 long Bankes, along Flandres, to wit,

Markes of the biem-mish bankes. when Grevelingen, is south and south and by east from you, then are you next the west end of the Bankes, and when Newport is east and by south from you, then are you next the east-end, they are very long, betwixt every one goeth a Channell through, each of a fundry depth.

The Cliffe About 4 leagues north and by east, and northnortheast from Calis, and N. N. E. from Calis Cliffe lieth the utmost Banke, called the Cliffe, is at the dryest place about 8 foote deep, by north off from the Cliffe, towards the Sea, is it 23 and 24 fathom deepe, upon the south side towards Ruiting, runneth a Channell through, called the Polder, and is wide and broad, of 20 and 23 fathom deep.

Ruyting. The second is called the Ruyting, lieth from Calis northnortheast, and from Calis Cliffe northeast and by nort, about 3 ¾ leagues, and it is there 5 or 6 fathom deep, upon the south-end lieth a Polder thereupon is but 1 ½ fathom water, when great Caffell comes over against Mardike, then you need not to be afraid of the Ruyting, but Mardike must not come more westerly, otherwise should you faile upon the aforesaid Polder betwixt these and the third goeth a Channell through, of 18 and 20 fathom.

The Dike. The third Banke is called the Dike, lie from Callis Cliffe northeast 1 ½ league, is upon the north end 4 and 5 fathom deep, but upon the south end 5, 7. and 8 fathom, upon this Banke lieth also a Polder on the south-end, but of one fathom depth; Wynoxbergen just by east the great Caffle, you runne then right upon the Polder, these Baukes are very dangerous, for the Ruyting, lieth almost in the farewater, betwixt this Banke and the fourth, goeth also a Channel through, is first by north 12 fathom, and begins further beyond the south to be 9, 7, fathom, but is somewhat dangerous to runne through, for you have the Dike norrh, a little beyond the

Rateling. Ratelbank south you have the Rateling, is at the highest nine fathom, and runneth upon 4 fathom, and sometimes lesse, and somewhat further beyond the south, you come one against a Polder, which lieth upon the Ratel-Banke, whereupon is but 4 and 4 a halfe foot water.

The south Banke is called the Ratel-banke, lieth from Calis Cliffe northeast, and northeast somewhat easterly 3 a halfe league, is deepe 3. 4. 5 and 6 fathom, upon the south-end lieth also a dry Polder, of 4 or 5 foot water, with Springstream fall those Polders dryes, betwixt the Rater and the Dike have you the Rateling of four, five, seven and nine fathom, and runnes unto the Dike.

By east the Ratel-banke, to wit, betwixt the same and the Broad banke, goeth also a Channell through, the end is wide and broad, and on the west end runnes it reasonable smal or narrow, is throughout of 14 unto 16 fathom water.

In all these channels you may saile up and downe, betwixt the foresaid Bankes, from the one in the other, and sett betwixt the Bankes where you please.

Great Caffell on Mardike also you may freely runne over the Dike and the Ratelbanke, without hindrance on the Polder.

broadband &c. The fifth is the Broad banke, lieth from Calis Cliffe, northeast and by east somewhat easterly, is upon the southend 4, 5, 6, 7. and 8 fathom, hath on the east side a great corner, shooteth with the northerly wind beyond the stonebanke, almost unto Calbanke, and is upon the east end of 4 unto 3 and 2 a halfe and 2 and 1 a halfe fathom, the fourther taile of the corner runneth close unto stonebanke, notwithstanding there is a good passage, (for to runne through with shipps) of 12, 11. 10, 9, 7, and 6 fathom, upon the taile is it from 2 unto 2 a halfe and 1 fathom, Small Sinten a litle by west the great Caffle, you should runne there right in the middle upon a Polder which lieth upon the Broad-banke, and is almost a leagues longe, also he that is upon the Ratel banke, hath through out no more then 4 and 3 foot water.

Betwixt the Beacons and the Broad banke, is it wide and broad, and 14, 12, 10, 9, 8, and 7 fathom deepe.

The Splinter shootes off betwixt the wodden Wambus and the Haven of Dunkerke from the Flemmish Coast, and runnes so forth in Wilbertsand, unto the Broad Banke, you can come through the Splinter on severall places, which you may reade in the Description thereof.

By west the haven of Grevelinge lieth a Banke or flatnesse along the wall, and stretcheth a great deale off from the land seaward, till close by Calis, called the Newland, you may runne thereby along or over upon 5, 4, and 3 fathom, so as you please.

The haven of Calis falleth with all Ebbes very drye, and with high water, upon a dayly Ebbe, is there not lesse then 3 fathom water. For to saile therein, keep the mill (standing on the east side of the towne) right over the easter Head, and runne so close by the Easterhead in, and leave the Castle on the west side from you, from the Westerhead runneth a little Riffe, off therefore you must have a care thereof. Comming within the Westerhead, you must turne up westwards, till you come in the Kuype, where you may sit drye with low water. In the night, when it is Ebbe stand two fire beakons, you may runne thereupon in. It is not good to runne into this hole before the Inguist water, because of the strong streame, which runneth there in with the flood, for you must have a care off the anckors of the ships which lie there within. It is there within dangerous and bad to lie, especially with a norther wind, which blowes there open in.

Thwart from the westerhead of Calis lieth a Banke of 2 fathom you may run through betwixt the head or Meyland and the same Banke upon three fathom with halfe flood the Banke is off two fathom depth. You may set it under Calis Cliffe, on the east end, upon 10 fathom, but on the west end lieth a Stone or Rocke under water, a little Canon-shot from the land: Calis Cliffe lieth betwixt Calis and Swartenesse.

The coast of Engelandt from Dover to the north Foreland.

Betwixt Callice and Dover amiddest in the fareway, (or somewhat nearer the French side then the English) lieth a narrow bancke of foure leagues long, lying about N. N. E. and southsouthwest alongst the land off Blacknesse, being called the Vaen, and by the Dutchmen called Vrow-sand, off 1 and a half 2. 3. 4. 5. 6. 7. & 8. fathom depth, & runneth to the southwards toward, the land of Bulleyn. West and by south from Callice cliffe, and south and south and by east from Dover, is the shouldest of it, at low water not deeper then sixteene or seventeene foot. On both sides of this banck, as well alongst to the eastwards as to the westwards off it, it is 20, 22, 23, and

24 fathom deepe. Men may anckor before Dover for a north and northwest wind, right against the Castle, in tenne fathom, is the beft road, and cleane ground. For to faile into the Downes from the fouthwards, you muft run about by the fouth Forland, within two cables length alongft by the land, and anckor thwart of the middelmoft Caftle in 7, or 8 fathom.

The fouthermoft point off Goodding, and the fouth Forland lye N. E. and S. W. afunder.

Goodding Betwixt Goodding and the Valley in the land off the north Forland, called Ramfgat, lie two fhowlds, whereof the weftermoft is called the Quernes, and the eaftermoft the Brakes.

For to faile from Dover (through within the Goodding, betwixt the Goodding and the Brakes) to the north Forland, you muft goe on north and by eaft fo long until that the mill vpon the north Forland come to the weft fide off the Valley in the north Forland, then goe yet north and by eaft, and northnorthweft, until that the little fteeple upon the North Forland come to the eaft-fide of the foreiaid valley, then you fhall beer to the northwards off the Brakes, and then the little flat fteeple upon fouth Forland commeth to, or right over the third white Chalckhill to the Northwards off the fouth Forland, that is a direct long marke, for to fayle through betwixt the Brakes and Godding, as well when you come from the Northwards as from the Southwards.

brakes. For to faile through within the Goodding from the northwards, you muft not kome nearer the Brakes then in feven fathom, and fet the fouth Forland fouthfouthweft from you, and faile then fo right with it, and then you fhall runne alongft the beft deepe. When that the flat fteeple upon the North Forland ftandeth in Ramfgat or the Valley, then you fhall be thwart of the Brakes, and when the mill commeth in Ramfgat, you fhall be to the fouthwards of the Brakes.

When you lie in the Downes, and that the inner point off the cliffe off the fouth Forland lie fouthfouthweft from you Quernes. then the Quernes lie north and by eaft from you, and the N. end off Goodding N. E. from you.

The north end off Goodding, and the point off the north Forland lie fouthealt and by eaft and N.W. and by W. a league and a halfe afunder.

For to fayl throuth betwixt the Brakes and the Quernes. For to come from the northwards into the Downes through betwixt the Brakes and the quernes: there ftandeth a Church upon the high land of the fouth Forland, to the northwards off it, which is a flat fteeple, and the church fomewhat great of body, and there are three Caftles upon the ftrand off the Downes, you muft bring the foreiaid Church with the flat fteeple right in the middeft betwixt the two fouthermoft Caftles, and then you are in the fareway in the middle off the channell, and that wil ferve for a leading mark to run through betwixt the Brakes and the Quernes, and the courfe lieth through S. S. W. If the winde bee foutherly, that you muft turne to windwards through, runne not further over to the eaftwards then that the foreiaid Church come within 2 fhips length of the fouthermoft caftle, for if you fhould bring them neerer, or together, then you fhould run upon the brake, and being eaft about, run not further over the weftwards then that the foreiaid Church come within two fhippes length of the three, for if you fhould bring them neerer, or together, you fhould run upon the Quernes, and thefe markes will ferve to turne to windwards through betwixt the Brakes and Quernes either from the northwards or the fouthwards. The Brake is fteep, being 5 fathom clofe alongft by the fide of it, and in the middle of the channel is but 15 foot at low water, fo that it is deeper by this fide of the Brake, then in the middle of the channel. As you turn to winwards, and run over to the eaftwards towards the Brake, as foon as you muft caft about, or els you fhould be againft the Brake: the Querne is flat, but never the leffe as foone as you finde it fhowlder in running over to the weft wards the Querne) then 15 foote, you muft caft about again, and fo turn through. About halfe a leaThwart markes of the Goodding. gue from the north end off the Goodding to the fouthwards, lieth off a flat taile or fpit off land to the weftwards from the land, lying Godding, a great musket fhot off, and falleth dry a good of from wayes off at low water, which maketh the channell there betwixt the Goodding and the Brake very narrow, the thwart markes off this taile off land are thefe: up within the land, a litle to the fouthwards off Ramfgate, ftand 3 or 4 high trees together, when thefe trees doe come right over the fouthermoft end off the cliffe that lieth alfo a little to the fouthwards off Ramfgat, then youare thwart off this foreiad tayle off Ramfgat, when you fhall bee paft it, then you fhall have more For to run about a feabord of the Goodding. fand, as foon you fhall bee paft it, then you fhall have more roome to turne to windwards, and may run further over to the Goodding,

For to faile from Dover without the Goodding to the north Forland, you muft keep the point to the weftwards of Dover without the fouth Forland, and goe on northeaft until that the north Forland northweft and by weft from you, then you may boldly run to the north Forland and anckor before Margate, or where that you fhall thinck it beft, but thwart of the fteeple, where the mill ftandeth by, is the beft roade. Or when the point of the north Forland lieth fouthfouthweft and fouthweft and by fouth from you, there is alfo good riding in eight or nine fathome. Betwixt Margate and the Reculvers, men may anckor every where in fixe or feven fathom at halfe flood.

Betwixt the Querens and north Forland men may alfo run through to Sandwich, there runs of a little Stonebanck from the fhore, called the Fourefoot, betwixt that and the Querenes it is at halfe flood two fathom deepe. The Quernes are lately growne much leffe, and fhifted, fo that the north end of them is allmoft gone.

About a great league to the weftwards of Callice cliffe, Blackeneffe lieth Blackeneffe, a fowle out-point, thwart of it lye many rocks alongft the fhoare. From Blackeneffe to the River of Bullen, lieth the coaft fouth and by eaft three leagues, a league to the fouthwards of the Neffe, the land falleth fomewhat in with a faire fandy Baye. In this Baye lieth a Fifher village on the coaft, thwart off it in the fandy Baye is a very good roade for eafterly windes, in 5, 6, 10, 15, and 16 fathom, according as you will lye farre from the fhoare. For to anckor there, you muft bring the fteeple of the village over the middeft of the houfes. This place is called S. Iohns S. Iohns Roade. road. A litle to the northwards of that foreiaid Fifher village, ftands a mill with fome houfes, from thence to the northwards you may not anckor, for there the ground is fowle and ftony. To the fouthwards of the Roade towards the River of Bullen, lye alfo fome litle rockes alongft the coaft, which you muft not come very neare to.

Upon the north point of the River of Bullen ftandeth a Tour high thick Tower, called a Tour d'Ordre, by fea men the d'Ordre, Oldman, Oldman, a fpeciall mark for to know the River by. About an Engliih mile to the northwards of this Towne, a litle mile from the fhore lieth a litle funcken rock under water, where a Tour d'Ordre. Suncken rock. Huye or Smack may not goe over.

Upon the fouth point of the River of Bullen ftandeth a ftone bullen. ne wall, and upon it a great Beakon of a maft, thwart off it from the fouth point lieth off a litle riffe or fhould, that you muft fhun, and run clofe aboard alongft by the Head, which lyeth at the north point, and hath been there lately made. When you are come within this Head, you muft preiently let fall your anckor and ride there. It is a tyde-haven, there men muft goe in at high water, and at low water lye drye upon the chindle. Without, before the River, lieth a banck, men were wont from the fouthwards to run in over it in two fathom, and from the northwards in three fathom but it is now to the fouthwards deeper through the fcouring of the water alongft the foreiaid Head, which is made at the north point,

From the Oldman, or the River of Bullen to Somme is the The Somcourfe fouth about eleven leagues, between them lie alfo two me. other Rivers, Cauche and Autry, upon the firft lie Eaftaples & Monftreu, thefe you muft goe in amid channell at the higheft water, within, 1 falleth altogether drye at low water.

Men may faile into the Somme through two channell, from For to fayl the eaft point called the Eaft Downe, lieth off a fand thwart into the fomme. before the channell, to the weftwards off that riffe lyeth alfo an other great banck, between them goeth in Eaftet channell. For to faile in there, bring S. Valery a cables length to the Weftwards of the weft point of the river, called the Oordell, & run in thereupon, until you come to the land and that foreiaid weft point, & from thence clofe alongft by it, or as foon as you get againe deeper water over the banck, then up eaftward towards the Beacons. From the point of the Oordel lieth of to the N. wards a litle riffe, upon the end of it lieth a buye which you muft leave on the ftarboard fide, and run in clofe about to the N. wards of it. From the point of the Oordell upwards, it is fer all alongft with beacons, you muft run alongft clofe by them, until you come within the point of S. Valery, where you muft anckor, and lie every tyde dry. The fand there within do ftift fo often, that they are not to be defcribed foralwayes.

For to faile into the weſter channell, comming from the For to fayl eaft or the north, you muft run along by the bankes in fix or into the weſter channell. feven fathom, and not nerer, they are fo fteepe, that a fhipp fitting fait againft them with the fore-fhipp, at the ftern hath three fathom. Comming towards the land at the end of the bankes, you fhall finde a buye. Or els if you come from the weſt, and bring Grotoye a cables length within the Oordell,

Oordell, and faile fo right in, you fhall finde the foreiaid outermoft buye. Befides this, there lye three other buyes, whereof that foreiaid buye on the point of the Oordell is the fourth, and the innermoft: you muft leave them all on the ftarboard fide towards the land, and runne alongft by them to the northwards off them.

Theſe channels and fands there within all untill paſt S. Valery) fall at low vvater altogether drye, the buyes alſo fall drye, that men may goe by them; at halfe flood with a ordinary tyde, there is no more then two third parts of the flood beſpent. With an ordinary tyde it ſloweth there five and ſixe fathom, but with a ſpring-tyde ſeven fathom up and downe. At high water and ſpring-tyde, a man may goe over all the banckes and ſands with eight or ten foot water: five leagues upwards lieth Abbeville.

Thwart of the Somme, it is farre of into the ſea ſhould water, five, ſixe, ſeven, eight, nine and ten fathom, three or four leagues of into ſea: he that commeth from the weſt, and findeth himſelfe in darcke and miſly weather to bee in ſuch ſhoulding, may bee well aſſured, not to bee farre from the Somme.

Of the tydes and courſes of the Streams.

Alongſt the coaſt of Flanders on the land, a ſouth and north moone maketh full ſea.

In the fareway without the Flemiſh banckes in the ſea, a S. VV. moone maketh high water.

In the middeſt betwixt the heads, a S. W. moone,

At Dover, a ſouth and north moone.

In the Downes, a ſouthſouthweſt moone.

At the N. Foreland, a ſouth and north moone.

Alongſt the Flemiſh banckes, thoſe flood falleth over the banks, towards the land, about the third part of the tyde, afterwards alongſt the Land, but the after-flood falleth to the northwards alongſt the ſea in the right fareway.

VVhen the flood beginneth to go there thwart off at ſea, then it is already half flood on the land, and the water flowen halfe wayes, ſo that men may ſee into all the Havens on the Flemiſh coaſt with 5 or 6 foot water.

In the middeſt through the Headens, the floot falleth northeaſt and by eaſt, and the ebbe ſouthweſt and by weſt.

From Dover to the N. Foreland, the tyde falleth through within the Goodding N. and S. over the Brakes and Quernes.

Before Callice and Blackneſſe, the flood falleth firſt one quarter to the land afterwards no ſtrength.

Betwixt Blackneſſe and Bulleyn, the flood falleth north and by eaſt by the land, but a ſeaboard in the offing northnortheaſt. A S. S. E. moone maketh there the higheſt water.

Betwixt Bulleyn, Diep, and before the Somme, the flood falleth firſt one quarter to the land; afterwards north eaſt and by eaſt, and the ebbe ſouthweſt and by weſt,

Of the Depths.

In the right fareway betwixt the Marſdeep and the Heads it is 23 and 24 fathom deepe. A little without the Flemiſh banckes 18, 19, and 20 fathom, but neere Goodding, or about the north Forland, it is 26, and 28, and alſo 30 fathom deep, the nearer Godding the deeper water.

Being thwart of Godding in 28 or 29 fathom, you ſhall not be 2 ſhots of a caſt-peece from it.

For to faile out of the Marſdeep towards the Head, go not on otherwiſe then fouthweſt, and ſouthw. and by ſouth, (but you muſt be very carefull to take heed off the tydes) when you ſhall reckon to have ſayled 40 or 46 leagues, then edge over to the Flemiſh banckes, untill you come in 20 or 18 fathom, when that you are furé of theſe grounds then goe on ſouthweſt, and at length ſouthweſt, and by weſt, and you ſhal com in the midſt betwixt the heads of Gallice and Dover.

Flanders you may ſee from the Poope in 16 fathom, and then you are within the point of the Flemiſh banckes.

Callice cliffe and the ſouth Forland, or the point of Dover, you may ſee when you are before them in 14 fathom.

To the ſouthwards of the Oldman, or Tour d'Ordre, lieth the high land of Eaſtables, which is very good to be known, becauſe the eaſtours is no land to high. VVhen that is northno theaſt from you, and you be thwart of the Somme, it is there deepe 8 and 9 fathom.

Vpon the land off Somme towards Diep, ſtand many ſharp towers, and ſome milles and trees, and hath all alongſt the coaſt a fandy ſtrand.

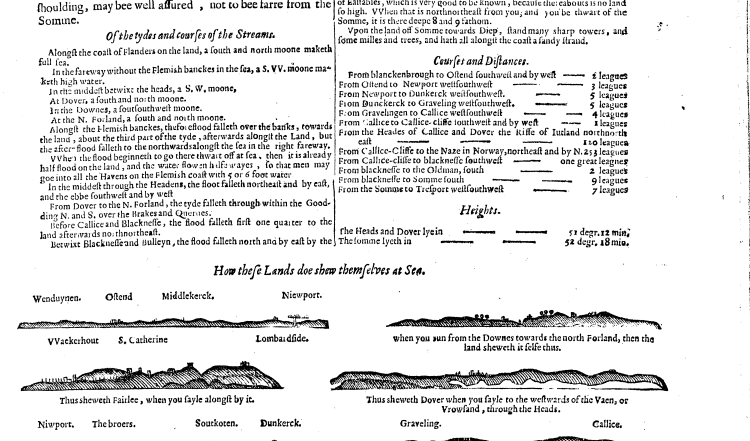
Courſes and Diſtances.

From blanckenbrough to Oſtend ſouthweſt and by weſt	5 leagues
From Oſtend to Newport weſtſouthweſt	3 leagues
From Newport to Dunkerck weſtſouthweſt.	5 leagues
From Dunckerck to Graveling weſtſouthweſt.	5 leagues
From Gravelingen to Callice weſtſouthweſt	4 leagues
From Callice to Callice-cliffe ſouthweſt and by weſt	1 leagues
From the Heades of Callice and Dover the riffe of Iuland northnorth eaſt	150 leagues
From Callice-Cliffe to the Naze in Norway, northeaſt and by N. 253 leagues	
From Callice-cliffe to blackneſſe ſouthweſt	one great leagues
From blackneſſe to the Oldman, ſouth	2 leagues
From blackneſſe to Somme ſouth	9 leagues
From the Somme to Tiefport weſtſouthweſt	7 leagues

Heights.

The Heads and Dover lyein	51 degr. 12 min.
The ſomme lyeth in	52 degr. 18 min.

How theſe Lands doe ſhew themſelves at Sea.



The First part of the Firie Columne,

THE SECOND BOOKE,

Of the

WESTERN NAVIGATION

Containg

The deſcription of the Zea-Coaſts of the France from Treſport to the Roſcon, and the coaſt off England, from Pierley weſtward, to Englands end, the Channell of Briſtow, and with all the Sea-coaſts of Ireland.

The firſt demonſtration,

Wherein are ſet forth the Coaſt off France, from Treſport to Roſcon.

FRom the Oldman to Diep, the courſe is ſouthſouthweſt fixteene leagues, but from the Sommer to Diep ſoutweſt and by weſt eight or nine leagues. About halfe wayes betweene the Some and Diep, lieth the River off Heu, wi-
Treſport. thin it on the north ſide lieth Treſport, being alſo tyde-haven, where men muſt goe in at high water, and at low water lye dry.

Diep. At the eaſt ſide off the Haven off Diep, lieth a rane off rocks, and from it lieth a little riffe off chindle towards the north, or the weſt; to the ſouthwards of this riffe goeth in the channell, abouth ſoutheaſt in, it is very narrow, and a ſhort inlet, there in lye three buyes in the middelt of the deepe, not above a ſtones caſt one from the other, men may run in on both ſides of them, comming to the end of the buyes, they muſt keepe the middle of the channell, and run in betweene the heads, untill they come within the towne, and there make faſt with a cable on the ſhoare. Men may not faile in there before flood, but not a halfe ebbe; at low water it falleth altogether dry, but within at the Towne men may ride a ſloot, at high water there commeth three fathom, or at the higheſt not more the 3 fathom and a halfe water, there come out allwayes Pilots to bring ſhips in.

S. Valery in Caux. From Diep to Saint Valery in Caux, it is weſt ſouthweſt foure leagues, that is alſo a tyde haven, where you muſt goe in with high water, it is a narrow channell, where you goe in betweene to the Heads, there is neither ſand nor banck before it that can hurt you: being come in, you may let your anckor fall, and make you faſt with a cable on the ſhore. Hee that hath neither cable nor anckor, may (being come there within) faile his ſhip on againſt the ſhoare in the chindle, and ſo ſave his ſhip and goods without dammage.

Fecam. From S. Valery to Fecam it is weſtſouthweſt foure leagues, is a deepe tyde-haven, there ſtayeth at low water litle leſſe then 2 fathom water. At the eaſt ſide of the havens mouth lieth a banke or plate, men may with ſmall ſhippes faile in through betwixt it and the land, and ſo runne in, ſounding, borrowing it eight or nine foot alongſt by the eaſt ſhoare, which is flat. For to faile into the weſtwards off the plate, you muſt keepe the Tower off Fecam, without the land, or without the Weſt point of the Haven, and then it ſhall bee ſouthſouthealt from you run then upon that mark into the Haven, and then the foreſaid ſand ſhall remaine on the larboard ſide off you, and at halfe flood you ſhall have in the Hamens-mouth 2 fathom water, being come in before the towne, you may anckor there by the Weſter ſhoare in three fathom.

Struyſaert From Fecam to Struyſaert it is weſtſouthweſt three litle leagues. Without the point off Struyſaert lie two high ſharp rocks. From thence to Synhead it is ſouth and ſouth and by weſt, 2 leagues and a halfe.

About northweſt from Synhead lieth a bancke, upon which at low water remaineth no more then two fathom and a halfe water: the towne of New-haven commeth without Seynhead, then are you thwart of the banck: Foravoid it, run in cloſe aboard the Seynhead, alongſt untill you come within the firſt mill, there let fall your anckor in 6 fathom, and ſtay for a Pilot to bring you into the haven.

For to faile into the River off Roan, comming from the
For to fail into the River of Roan. north or the eaſt you muſt runne cloſe aboard the land to the northwards of Seynhead, land alongſt by it ſo long untill the ſonth ſide of the river come unto the point of Seynhead, then runne in with it, untill the land to the weſtwards of Newhaven come without Newhaven, faile then unto the Haven of Newhaven. Or elſe, if you will goe without about the banke or the Rettires, then edge over to the weſtwards ſo far from the land untill the river come open faile, then towards the point of Tocher, and run in upon your lead by it, there is at high water three fathom, and at low water no more then one fathom. The Retires is a ſtony bancke, lying in the middeſt of the River of Seine, lying over towards the point of Honfleur, at low water it falleth at ſome places drie, at halfe flood it is to the ſouthwards three fathom, but to the northwards 2 fathom deep. When the land of Caen is without the point of Seynhead, and you faile then with it, ſouth on, then you runne to the weſtwards off it, or alongſt without it. Or elſe, if you keepe Struyſaert a handſpikes length without the point of Seynhead, then you runne alſo without it. When the eaſter gate of New haven commeth over the eaſter head, and the eaſter mill, and faile then ſo on, keeping them ſo, then you runne in right to the northwards of the Retriers, and alſo you can take no hurt of the banck that lieth towards Seynhead. At Habell or New-Haven men muſt goe in at a high water, and within lye everie tyde drie.

The river of Seine muſt be ſailed into upon the tide, when the moſt, or the ſtrongeſt off the flood is ſpent, then you may ſayle alongſt by the land upon your lead, untill you may ſe in open into the river of New-haven, when then the ſouther Caſtle commeth over the eaſter-head, and the mill; run then right in upon it, but it is beſt to anckor halfe wayes betwixt the Caſtle and Seynhead, and there to ſtay for a Pilot: If there come none of, then faile from thence right wit the Caſtle that ſtandeth upon the head, there it is deepeſt water.

To faile from Newhaven upwards, towards Roan, is not well to be done without a Pilot, you muſt goe with the tyde through the firſt travaille or banckes, which lie from New-Haven to Honfleur ſoutheaſt, alongſt by ſoutherland, and from thence alongſt the north ſide of the River to Quillebeuf, being come there, you are through the firſt travaillie. You muſt alſo bee well adviſed, and take good heed for the ſtrong ſpring by the Normans, called La barre, which everie tyde commeth on ſo ſtrong with the flood, that anckors and cable have enough to doe to hold a ſhip: For that and other dangers more, it is not good nor convenient to ſaile up the river without a Pilot.

Two great leagues to the ſouthwards of the river of Roan, Tocher. lieth a Tydehaven, called Tocher, on the weſt ſide of the entry ſtandeth a beacon, by it you muſt go in, or you may found it in by the Larber-ſhoare. Southweſt, or Southweſtand by ſouth from the point of Seynhead, about ſix or ſeven leagues off, lie many bankes, a good ways in ſea, you may faile on both ſides off them (as well to the eaſtwards as to the weſtwards) into the Foſſe off Caen, which lieth in moſt ſouth, Foſſe off Ceau. and lieth in a Baye. At the weſt ſide lieth a chindle, where men may ride within it, it is wyde and broade, and ſandy ſtrand, the caſt land is ſand hills and farre flat in five and ſeven fathom, there men may goe in, ſounding with the ſounding pole.

From Seynhead to Cape de Barfleur, or Cape de Schierbo-
C. Schierborough. rough, the courſe is weſt nineteene leagues. About foure leagues to the caſtwards off it lye the Hands of S. Marques, men may

The ſecond part

THE SECOND BOOK

OF THE

FIERIE SEA-COLVMNE,

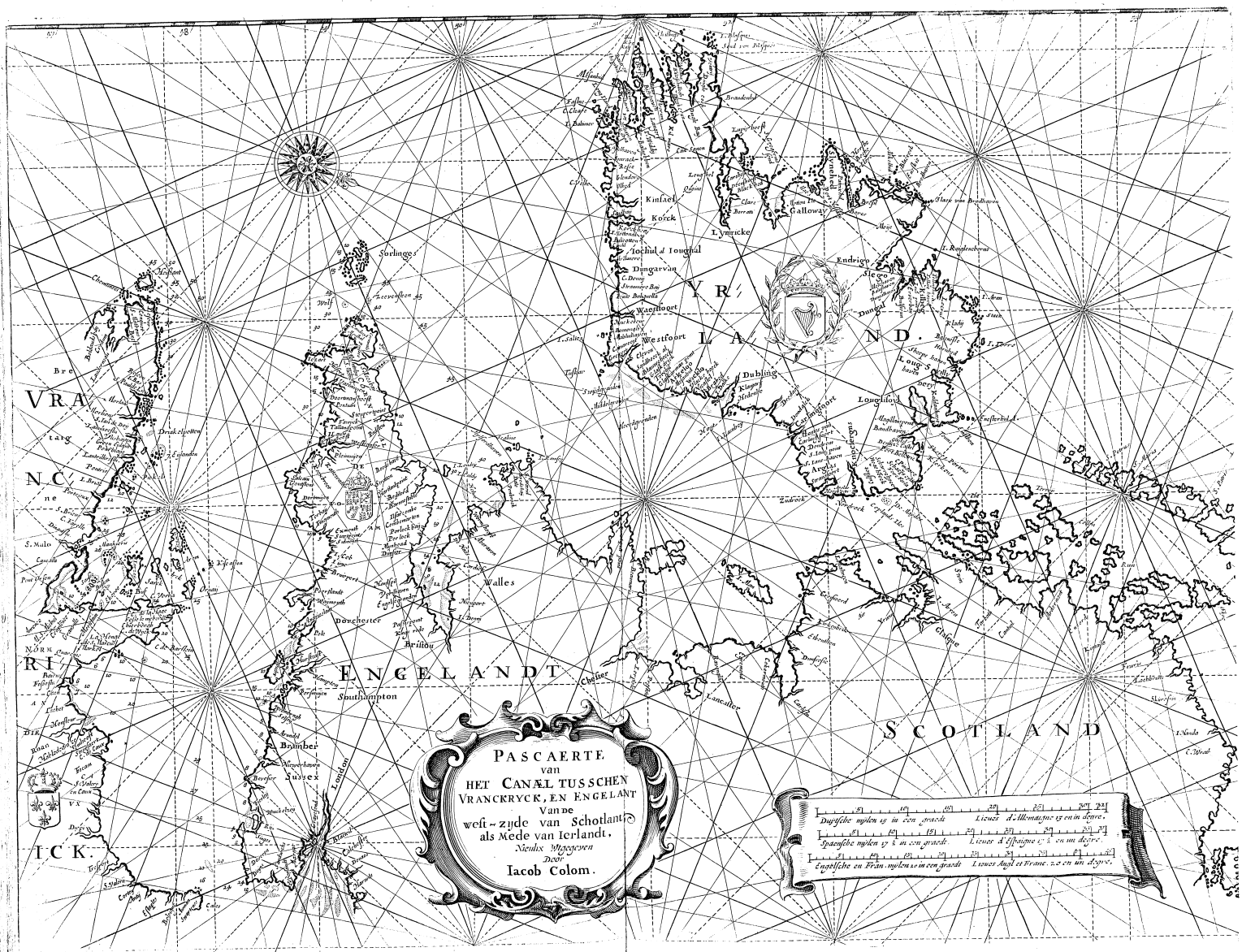
WHEREIN

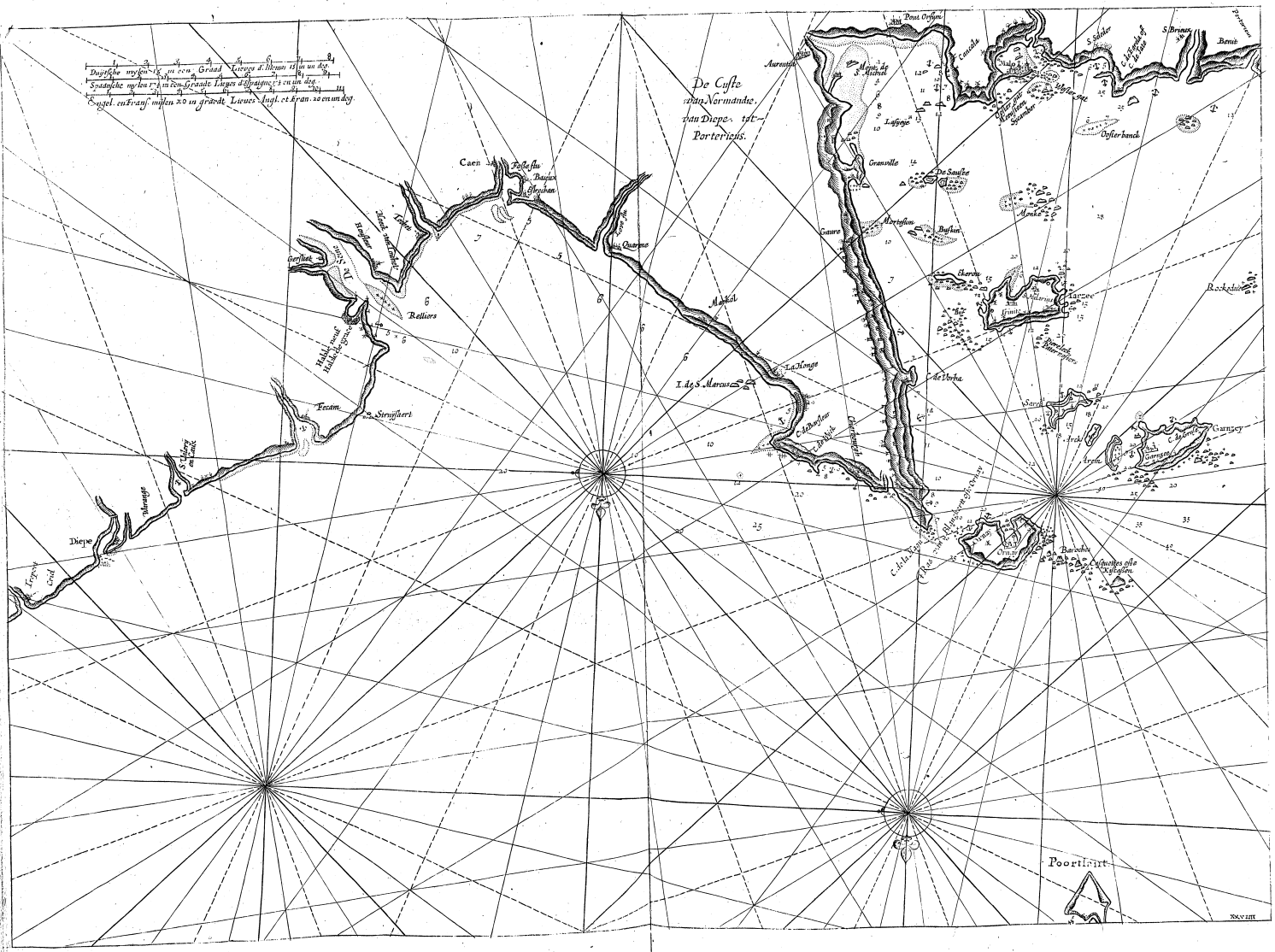
Is contained the Deſcription of the Seacoaſts of the Channell between England and France; and likewiſe the Sea-coaſt of Ireland.

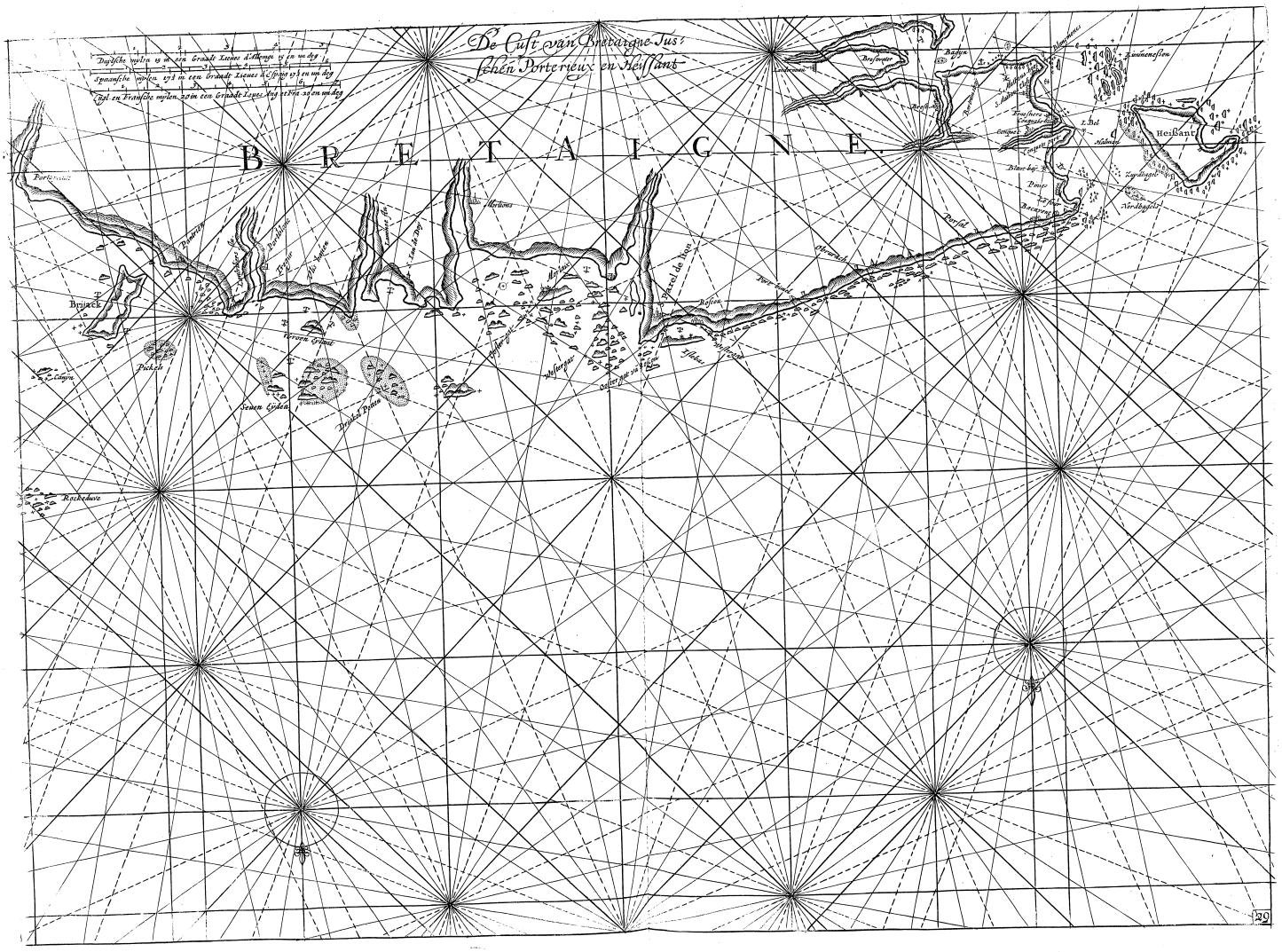
With priviledge of the High and Mighty Lords, the States Generall, for twelve yeares.

Printed at Amſterdam,

By Iacob Columne, on the V Vater, in the Fierie Columne,


PASCAERTE
van
HET CANAL TUSSCHEN
VRANCKRYCK, EN ENGELANT
Van de
west-zyde van Schotlant:
als Mede van Ierlandt.
Nieulix Wtgegeven
Door
Iacob Colom.
ENGELANDT
SCOTLAND
IERLANDT
Dublin
Kinsael
Korck
Lymricke
Galloway
Westport
Waterford
Endrigo
Sligo
Longford
Louth
Dundalck
Chester
Lancaster
Carlisle
Southampton
Brambor
Sussex
London
Dorchester
Bristou
Walles
Cornwal
Devon
Kent
Norfolck
Suffolck
Essex
Hantshire
Barwick
Edenburgh
Glasco
Dunbar
Dunkerck
Calais
Boulogne
Diepe
Roan
Caux
Vlissingen
Middelburgh
Sorlingues
Scilly
Engelsche en Fran. mylen 25 in een graedt
Lieues Angl. et Franc. 25 en un degré.


De Custe
van Normandie,
van Diepe, tot
Portericus.
Duytsche mylen 17½ in een Graad Lieuwe d'Hollan 15 in un deg.
Spaensche mylen 17½ in een Graade Lieues d'Espagne 17½ en un deg.
Engel. en Franf. mijlen 20 in graedt Lieues Angl. et Fran. 20 en un deg.
Caen
Bayeux
Bellers
Gerfluet
Fecam.
Stroffaert
Diepe
Pont Orfure
Aurenche
Monte de S. Michiel
Granville
De Saulfee
Monts
Cherein
Iarsee
Rocksdune
Gansey
Barochs
Poortlant


De Cust van Bretaigne Tus-
schen Porterieux en Heissant
Duytsche mylen 18 op een Grade Lieues d'Allemagne 15 in un deg
Spaansche mylen 17½ in een Grade Lieues d'Espagne 17½ in un deg
Fransche mylen 20m een Grade Lieues d'Angleterre 20 in un deg
BRETAIGNE
Porterieux
Blanchard
Bertheaume
Figuier
Ile Molene
Canal de Molene
Ile Ouessant
Ile Keller
Ile Morlaix
Canal de Iroa
Brest
Bertheaume
Portsal
Bresschen
Bayon
Roscoff
Penmenesten
Heissant
Bertheaume
Bruyack
Pierres Vertes
Pierres Noires
Pierres Jaunes
Pierres Rouges
Pierres Blanches

may faile round about them, but it is not there very cleane.

S. Marcus la Honge. A league to the weſtwards of the Iland of S. Marcus lyeth a Honge a flat tower, to the weſtwards of it lieth the point of Barfleur, betwixt both is a great baye, where men may lie in 6 or 7 fathom land-locke for a northnorthweſt winde. A northeaſt winde bloweth there open in.

Sunken rock. From the north point or C. de Barfleur (which lyeth northnorthweſt from you, when you lye in the road) lieth of a banck or litle riffe, yet a ſhippe may go over it. Northeaſt a league and a half of from the foreſaid point lieth a rock under water, where ſhippes may not goe over.

C. de wyk From C. de Barfleur to Schierborough it is weſt and weſtnorthweſt foure leagues, that is a litle Tyde-haven. To the weſtwards off the point of Barfleur lye ſome foule grounds, if you keepe the high land of Schierbrough with one the Cape de Wyck, you ſhall not come to neare them.

Before Cape de Wyck is a good roade in ſix fathom, a litle to the eaſtwards off the two high rockes in a ſandbay.

Before Schierborough lye ſome rockes, or litle Ilands, which are cleane round about, to the weſtwards off it lyeth a Tyde-haven, called the Foſſe off Moberille, before it on both ſides lie 4 or 5 high rocks, at high water men runne through betwixt them, and ſo into the Haven. A great league and a halfe to the weſtwards off it, lieth Cape de Hague,

Cape de Hague. Ornay. The Race of blanckert. Two leagues weſt and by north from Cape de Hague, lieth the Iland Aldernay or Ornay, betwixt them goeth the Race of blancker through. Aldernay or Ornay is about three leagues long, and lieth eaſt and weſt. The eaſt end is cleane, men may faile reaſonable cloſe alongſt by it, but the weſt end is very foule: There lie ſome litle Ilands cloſe by the weſt end, being paſſed them, men may ſayle towards Jarſey without any feare.

To the ſouthwards of the foreſaid litle Ilands at the weſt end lieth of a ledge of rockes, within it, on the ſouth ſide it is cleane, except at the ſouth point, that is alſo foule. Hee that will anckor on the ſouth ſide of Ornay, muſt be mindfull thereof, and anckor a litle to the eaſtwards of the Tydehaven.

From the weſt end of Ornay lieth a great multitude of rockes weſt and by north, and weſtnorthweſt of three leagues into the ſea.

Upon the outtermoſt and weſtermoſt end, lyeth a great high rocks with many other ſmaller rocks about it. Halfe wayes betwixt this great rocke and Ornay lieth another great rock, but not ſo high as the foreſaid weſtermoſt, from it lye of a multitude of rocks towards the outermoſt, which fall dry at low water, but at high water many lye under water. Theſe two great rockes are called by the French Les Caſquettes, and by the Dutch the Kiſkaſſen, and by the Engliſh the Caſkets.

Raskets. Cloſe by the weſt end of Ornay, towards the Caſkets, lie other

Barroches two great ranes of rockes, called the Barroches.

From the eaſt point of Ornay to the eaſt end of Garnſey (about to the ſouthwards of Ornay) the courſe is weſtſouthweſt, ſeven leagues, but from the Caſkets to the weſt end of Garnſey ſouthweſt and by ſouth, 7 leagues.

Roan under Garnſey. If you will anckor under Garnſey (comming from the Caſkets) then runne on to the northeaſt point of Garnſey, and ſo for to the eaſtwards of it, untill you get ſight of the caſtle that ſtandeth upon the rock on the eaſt ſide of Garnſey. Or if you come about to the weſtwards of the Caskets, then goe on ſoutheaſt, or ſomewhat more ſoutherly, untill the northeaſt point of Garnſey be ſouth and by weſt from you, ſaile then towards it, you ſhal come in ſight off that foreſaid caſtle upon the rocke. Bring that over the ſouth point off Garnſey, and ſaile in upon that marke, betwixt the Iland Arem, or Harm, and Garnſey, untill you come by the foreſaid Caſtle, betwixt theſe Ilands it is on both ſides full off rockes, whereof you muſt take good head, eſpecially on the larboard ſide towards Arem. When you are come by the caſtle, you may anckor within or without it, where you pleaſe, without the Caſtle in 12 or 13 fathom, or within the Caſtle (that is bewixt the Caſtle and Garnſey) in ſix or ſeven fathom at low water, it doth flow there ſix or ſeven fathom up and downe, which men muſt reckon upon.

Under the ſouth ſide of Garnſey men may ryde for northweſt, north, and northeaſt windes. If you come from the weſt, or from the Caskets, you muſt runne cloſe about by the ſouthweſt point, called C. de Gruſe; and alongſt by the ſouth ſide of the Iland, well halfe wayes the Iland, & anckor there where you think good, in eighteene or nineteen fathom. If the wind ſhift to the ſouthweſt, or to the weſtſouthweſt, then you may runne about by the ſouth point unto the foreſaid Caſtle, and anckor there either without or within it, as here before is ſaid. From the aforeſaid ſouth point, lieth off a litle ledge off rocks, whereof ſome rocks lye above, and ſome under water, that you muſt avoid when you ſaile about by it.

Rockedus. South and by weſt, and ſouthſouthweſt about eight leagues. From Garnſey lieth a great ledge of rockes, more then a league great, called Rockeduves.

Sarck. About 2 leagues eaſt from Garnſey lieth the Iland Sarck, there men may anckor round about it in five and twenty, ſix and twenty, and ſeven and twenty fathom. From the north end lye off ſome Rocks, whereof ſome lye above, and ſome under water. At the ſouth end of lye alſo ſome rockes, but all above water.

Arck and Arem. Betwixt Garnſey and Sarck lye two other litle Ilands, Arck and Arem, or Harm, there men may faile through betwixt them.

The Iland Jarſey lieth from Garnſey ſoutheaſt diſtant 7 leagues, round about this Iland are good roades at divers places. All alongſt the north ſide men may ankor in 10 and 11 fathom. At the ſame north ſide, ſomewhat within the weſt point, lye ſome great rockes, a good wayes off from the ſhoare, called the Pater noſters, or Pierreleg. At the ſouthweſt point lye many rockes which lye of a great wayes into the ſea, to the northwards of them, to wit, betwixt them and the weſtermoſt point, at the weſt ſide of Jarſey men may anckor at divers places in ten, eleven and twelve fathom. At the ſouthſide of Jarſey is alſo a good road for a northweſt and weſt northweſt windes. At the eaſt ſide lieth S. Cathernes baye, there alſo a very good roande for weſterly windes.

Pater noſtiers. S. Catherines bay

Mankiers Rockes. The weſt end of Jarſey and S. Malloes, or the Iland Siſember before S. Malloes lie ſouthſoutheaſt, and northnorthweſt, eight or nine leagues a funder. About halfe wayes betwixt both right in the fareway, lye a great number off high rockes together, which containe in circuit in failing about, ſeven or eight leagues, called the Mankiers, they lie farre towards Jarſey, ſome above and many under water, ſo that is not without great danger to runne through betwixt Jarſey and the Mankiers.

When men will faile through the Race of blanckert, bound for S. Malloes, they run commonly through betwixt Sarck and Jarſey, men may alſo faile to the eaſtwards of all the Ilands and ſhoulds alongſt the coaſt of Normandy, towards S. Malloes in manner as followeth.

Le Beuf. When men come a little paſt the C. Voorha, they ſhall meet (thwart of the Iland Jarſey) with three or foure high rockes, called Le Beuf, men may runne to the weſtwards of them, and ſo through betwixt them and the Iland Jarſey, or els to the eaſtwards of them alongſt by the main land, upon as they will, towards the riffe of Mortefaim, that lieth upon the coaſt of Normandy ſouthſoutheaſt, 8 leagues from Cape de Voorha.

Beuf kin. Over againſt, or thwart of the Riffe of Mortefaim, lieth a rane off rockes lying eaſt and weſt more then a league in length called Beuf kin, at the eaſt end many of them lie above, and at the weſt end moſt of them lie under water. Men muſt faile throug betwixt them and the riff of Mortefaim that are bound Granville.

Eckerou. Betwixt the foreſaid rockes Beuf and Beuf kin, lieth another great rane of rockes, called Enckerou, which lie off from the ſoutheaſt point of Jarſey towards Granville, you muſt leave all theſe rockes on the ſtarboard ſide, and run alongſt to the eaſtwards of them.

From the riffe off Mortefaim to Granville, the courſe is ſouthſoutheaſt, and from Buf kin ſoutheaſt 4 leagues.

Granville Cape de Voorha and Granville are two points that lie without one the other land. About the ſouth point of Granville lie two or three litle rockes, along by them men muſt run in within a Pier or head, where the ſhips lie dry at low water. Betwixt cape de Hague, and Granville, men may ſee upon the land many litle houſes, mills, and trees, as they faile alongſt by it. A litle to the ſouthwards off the riffe Mortefaim ſtandes a Church with two ſteeples, called Quotanſe. All alongſt this whole coaſt is every where good anckering in ſixe or ſeven fathom, eſpecially a litle to the ſouthwards of Cape de Hague.

La Skaufee About two leagues weſt from the point off Granville lyeth another great rane of rockes two great leagues long, lying eaſt and weſt, called La Skaufee, betwixt them and the point of Granville men muſt faile through that are bound for Concalle or S. Malloes.

Mount de S. Michiel. About five leagues to the ſouthwards off Granville, in a great baye, lieth an Iland before the river off Avrantie, about a league without the land, called Mount de S. Michiel, upon it lieth a Caſtle, or little towne, called S. Michiel, with a high

Towre

Tower which men may see at sea. This Bay is to the southwards of Granville, within the rocks of Concalle, very flat and rising ground, from thirteene, tenne, eight, sixe and foure fathom to one fathom, so that at low water the Bay falleth so farre dry, that from the strand men see no sea nor water.

From Granville to the point off Concalle, the course is southwest 5 leagues, from that eastwards lye three rockes, under which men may anckor in ten fathom. For to sayle to the towne men must runne betwixt the point and the foresaid rockes. It is betwixt them both eight and nine fathom deepe. Before the towne it is shoulder water. To the northwards of the Towne lye other two rockes, there men may also anckor under in 5 and 6 fathom water.

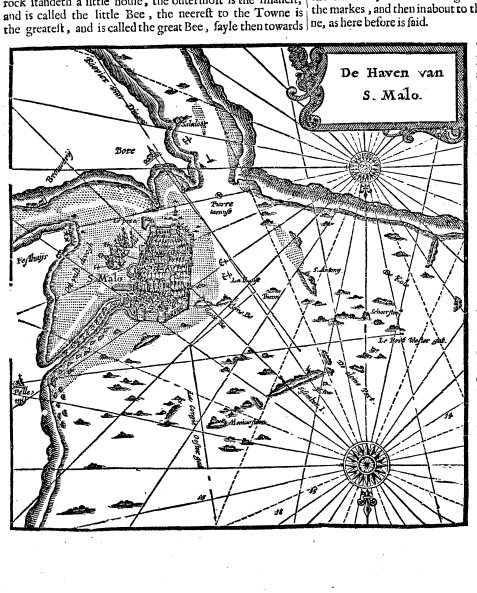
From the outermost rockes by the point of Concalle untill you come before S. Malloes, the course is west, and west and by south 5 leagues.

S. Malloes Sisember. Before the haven of S. Malloes, lyeth an Iland, called Sifember, upon the west end thereof standeth a mill, and upon the east end a Church with some little houses being a Friery, comming out off the sea, you can but even scarce see the Church, but being within the Iland, you may see it better, because it standeth on the south side off the Iland. A great shot off a caft peece to the eastwards off Sifember, lyeth a Mewstone. great high rock, called the Meuwstone: betwixt them and Sifember it is all full off rockes and stones, which at high water lye most under water: there is a little channel betwixt them both, which the French men use with theyr small shipping, through betwixt the rockes, but is not to be used with great shipping, neither by them that are not very well acquainted with it.

Betwixt the Meuwestone, and some other rockes to the La Bongie. eastwards off it, lieth in a channell south and south and by east in, called la Congie. For to saile in there you must runne in close aboard to eastwards of the Meuwestone, southeast and by east right in with the towne, untill you bee gotten in two third parts of the distance (betwene the Meuwestone and the Towne) from the Meuwestone, and are one third part of the distance from the Towne, that is when the Meuwestone is twice so farre from you as the Town, then you shal saile by the northwest point of the Town two great rockes, about a shot of a caft peece from the foresaid point, upon each rock standeth a little houfe, the outermoft is the smalleft, and is called the little Bee, the neereft to the Towne is the greateft, and is called the great Bee, fayle then towards them, and run in about them within a cables length of them, but keepe that course so long, untill that the little Tower (that standeth a little to the southwards of the towne upon the point) come over the tower of Bore a litle to the eastwards of Saledoor, keepe them one over the other, and saile so in, unto the south end of the town, where the mils doe stand, then you shall se there upon the rocks two Beakons, run betwixt them through at high water, untill you come within the towne, at the eaft side, the shippes lye moored with foure cables dry at low water, two saft on the towne, and two upon the sand. Betwixt these two foresaid beacons, to the southwards of the towo, and thereabouts, is the ground sharpe, rockie and stonie, therefore men must take heed not to stay there at low water, or to ground there, but within on the eaft side of the town it is cleane sandie ground, there may the shippes lye a ground without danger. Little and great bee.

A little within, or to the southwards of the foresaid rock the little Bee, men may anckor in five or sixe fathom water at low water, so that the tower of Bore cometh a little to the eaftwards of the little Tower upon the point to the southwards of the Town, that road is called by the French La Ranse, there men commonly first anckor, and stay for high water, for to goe in about to the southwards off the Towne. It floweth here at S. Malloes, and thereabouts, seven fathom up and downe with an ordinary tyde. The Road la Ranse.

From the west end Sifember, lye off also a great many rocks alongst to the westwards, more then a great shot off a caft peece, at the end of them goeth in the Wester-channell of S. Malloes east and by north in. For to saile in there, you must look out for a sharp little Tower, that lyeth somewhat to the northwards or to the eaftwards of S. Malloes, within the land called Pellemy, when you have brought that east and by north from you, then you shall see upon the shore right against it, a great black rocke, which for Blackeneese sheweth it selfe without all the other rockes thereabouts, and thereby is very good to bee knowne: Bring that rocke and the foresaid little Tower one to the other and saile so right in untill you come thwart of the Iland Sifember, or els that the little Tower (upon the point to the southwards of the Towne) come to the tower or Bore, to the eaftwards of Saledoor, saile then towards the roade of La-Ranse to the soulhwards of the little Bee, or els if it be high water, you may run in upon the markes, and then in about to the southwards of the Towne, as here before is said.


De Haven van
S. Malo.
Bore
Saledoor
Pellemy
Vogelsgat
S. Malo
Le Petit Vogelsgat
Le Grand Vogelsgat
Le Petit Bey
Le Grand Bey
Le Petit Bey
Le Grand Bey
Le Petit Bey
Le Grand Bey

Off the tydes and courses off the streams.

Betwixt Diep and Struyfaert without the land in the fareway, the flood falleth northeaſt and by eaſt, and the ebb ſouthweſt and by weſt.

At New-haven, and in the River off Roan a ſoutheaſt Moone maketh a high water.

From Struyfaert to Caen in the Foſſe, the flood falleth ſouthſouthweſt, and the ebb northnortheaſt.

Before the haue off Caen a ſouthſoutheaſt maketh high water, within the haven a ſouth and by eaſt Moone.

At Marckell, la Honge, Barfleur, Sherborough, and C. de Hage by the ſhore, a ſouth and by eaſt moone.

From Seynhead to Barfleur, the flood falleth by the land eaſt and by north and the ebbe weſt and by ſouth. But in the channel a feaboarde the land, the flood falleth away eaſtnortheaſt, and the ebbe weſtſouthweſt.

At Cape de Hague by the ſhore, a S. and by E. moone maketh wigh water.

In the race off Blanket a north and by eaſt, and ſouth and by weſt moone. The flood falleth through the Race northeaſt, and the ebbe ſouthweſt.

In the Ilands alſo a north and by eaſt, and ſouth and by weſt moone maketh a full ſea. Men cannot well reckon the tydes there; becauſe they haue diuers courſes about the Ilands, but for the moſt part northeaſt and by north. A quarter of the tyde, the flood falleth thwart into the caskets.

In Garnſey a north and by eaſt, and ſouth and by weſt moon maketh full ſea.

At concalle and Granville a weſtnorthweſt moone.

At S. Malloes an eaſt and weſt moone maketh high water.

The flood falleth in there at the weſter channell; and goeth out againe at the eaſter channell, men muſt reckon there vpon when they will ſayle into theſe channels.

From the Iland Briack in the bay of Benit, the flood falleth ſouthеaſt, but in the fareway eaſtſoutheaſt and w. N. w.

At the eaſt-ſide off the Iland Briack in the road ſouthſoutheaſt. An eaſt & weſt moon maketh there the higheſt water.

Betwixt the Ilands Briack and Garnſey, a weſtſouthweſt moone maketh full ſea. the flood runneth there eaſtſoutheaſt, and the ebbe weſtnorthweſt.

On the coaſt, and within the caskets, the tyde runneth continually againſt the Sunne, ſo that it is there never ſtill water.

Betwixt Segets Iſles, or the ſeven Ilands, and Garnſey in the fareway, a weſtſouthweſt moone maketh full ſea.

Betwixt Briack and the ſeven Ilands, an eaſt and by north, and weſt and by ſouth moone maketh full ſea. The flood falleth there eaſt and eaſt and by ſouth.

Betwixt the ſeven Ilands and the outer rockes off Morlions, the flood falleth in ſoutheaſt within the Triacle Pottes towardes the Green-Iland, but in the offing, eaſt and eaſt and by north.

At Morlaix and S. Pauls maketh highеſt water a weſt and by ſouth Moon, but in the fareway in the offing thwart of it, a ſouthweſt and by weſt, and weſtſouthweſt Moone.

At the Ile de Bas maketh high water a w. and by S. moone

In the fareway there in the offing, the flood falleth E. N. E. and the ebbe w. S. w. and ſo likewiſe from thence all alongſt the coaſt of Britaigne, unto the Fourne or Vshant.

Betwixt Dover and Dongie Neſſe, and likewiſe thwart of the Neſſe, a S. S. moone maketh full ſea.

From Dongie Neſſe to Dover, the flood falleth northeaſt and by eaſt, and the ebbe ſouthweſt and by weſt.

Of the Depths.

Before Diep, men may ſee the land in twenty and two and twenty fathom.

About foure leagues without Struyfaert it is deep 20 fathom.

Between Diep & Seynhead ſtand alſo many ſharpe towers trees and houſes upon the land, Struyfaert is belt to be knowne on a great rock like a high Tower, thwart of it in the fareway it is deepe 16 and 17 fathom.

About C. de Barfleur and Sherborough foure leagues from the Iland, it is deepe thirty fathom.

Barfleur is a high point, below upon the white land ſtandeth a flat Tower, two milles, and ſome litle houſes, and to the weſtwards of it is more white land.

Vpon Cape de Hague ſtandeth a Caſtle, with a litle turret, a litle to the eaſtwards of it in the land ſtandeth a ſharp Tower, two leagues to the eaſtwards off it lieth Sherborough with a flat ſteeple.

The land Ornay is vpon the weſt end high with a ſteep going down point: the eaſt end is hilly, or with hommocks, but lower then the weſt end, in ſayling by it, men may ſee vpon it a Tower or two with ſome milles. Vpon the north ſide of the Iland lyeth a white hill like a ſand-hill.

To the northwards of the Caskets, two leagues from land it is deep 35 and 40 fathom.

Betwixt the Kaſkets and Garnſey it is 35 and 40 fathom deep, moſt all ſtony ground.

Northweſt about foure leagues from Garnſey is a pit where it is 80 or 90 fathom deepe, elſe it is thereabouts 40 fathom deep.

Betwixt Ornay and Iarſey it is deep 20 and 25 fathom.

In the fareway of Iarſey, Rockduve and the Iland briack, it is deep 20, and 25 and 30 fathom.

About the Triacle ports alongſt the coaſt it is 25 and 30 fathom deep, in ſuch depths men may ſee the land thereabouts, by night it is not good to come neer that coaſt and the ſeven Ilands, then in 4 fathom.

Thwart of S. Paul de lion, and the iſle of bas, 5 leagues from the land it is deep 45 and 50 fathom.

Courſes and Diſtances.

From Treſport to Diep ſouthweſt	——	7 leagues
From Diep to Facam w. ſ. w.	——	11 leagues
From Fecam to Struyfaert ſ. w. and by w.	——	3 leagues
From Struyfaert to Seinhead, the courſe is ſ. ſ. w.	two great leagues	
From Seynhead to Caen in the foſſe, the courſe is ſ. ſ. w.	——	6 or 7 leagues
From blackneſſe to Diep ſouthſouthweſt and ſ. w. and by ſouth	——	17 leagues
From blackneſſe to ſtruyfaert, or cape de Caux, ſouthweſt and by ſouth, ſomewhat weſterly	——	29 leagues
From blackneſſe to the Caskets, the courſe is w. ſ.w.	——	48 leagues
From blackneſſe to Wight w. ſomewhat ſouthерly	——	37 leagues
From blackneſſe to beachy w.	——	20 leagues
From Diep to Wight, the courſe is weſt northweſt	——	37 leagues
From Diep to beachy northweſt	——	21 leagues
From Diep to Dover north	to every theſe or 24 leagues	
From Seynhead to Dieriviet, or the point of Sherburgh, weſt, ſomewhat northerly	——	20 leagues
From Seynhead to portland northweſt and by weſt	——	38 leagues
From Struyfaert to the eaſt end of VVight, northweſt northerly	——	29 leagues
From St Struyfaert to beachy, north	——	23 or 24 leagues
From Struyfaert to Fairlye, north and by eaſt	——	27 leagues
From the Struyfaert to the point of Dover, the courſe is n. n.e.	——	31 leagues
From Caen to Dierſhet, or the point of Barfleur n. w.	——	16 leagues
From Dierſhet to cape de Hague weſt and by north	——	8 leagues
From C. de Hague to the outermoſt of the Caskets w. and by n.	——	8 leagues
From the Kaskets to beachy n.e and by e.	——	37 leagues
From the Faskets to Wight n. e. and by n.	——	20 leagues
From the Kaſkets to portland north and by weſt	——	13 leagues
From the Kaſkets to the Steart w. n. w.	——	10 leagues
From the Kaſkets to Silly w. ſomewhat northerly	——	56 leagues
From cape de Hague to cape de Voosha. ſ. and by e.	——	7 leagues
From cape de Voosha to Granville ſ. e.	——	9 leagues
From Granville to Mount S. Michel ſouthſoutheaſt	——	5 leagues
From Granville to the point of Concalle, ſouthweſt	——	5 leagues
From the point of Concalle to the eaſter channell of S. Malloes weſt and by ſouth	——	and weſt 5 leagues
From the Iland Siſember, before S. Malloes unto cape de farrele w. and	——	or 5 leagues
From C. de farrele to the Iland Brinck w. and by north.	——	9 or 10 leagues
From the Iland Briack to the Pickelles w. and by ſouth.	——	2 leagues
From the Pickels to the 7 Ilands, w. ſ. w.	——	5 leagues.
From the 7 Ilands to the Triacle Pots w. ſ.	——	4 leagues
From the Triacle Pots to the Ile de Bas, w. ſ. w.	——	9 leagues
From Ile de Bas Vshant w. ſ. w.	——	16 leagues
From C. de Hague to the weſt end of Iarſey betwixt Sarck and Iarſey through ſouthеaſt	——	9 leagues
From the Caskets to the w. end off Garnſey ſouth weſt and by ſ.	——	5 or 6 leagues
From Garnſey to Iarſey ſouth eaſt and by eaſt.	——	7 leagues
From Garnſey to S. Malloes ſouth ſouth eaſt	——	16 leagues
From the ſouth end of Iarſey to S. Malloes ſouth ſouth eaſt	——	9 or 10 lea.
From Garnſey to the rocket Rockduves, ſouth weſt	——	8 or 9 leagues
From Rockduves to Manckiers e. and by ſou. h.	——	9 or 10 leagues
From Rockduves to C. de Farella ſouth eaſt	——	10 leagues
From Rockduves to the rock Camine ſouth and by weſt	——	4 leagues
From Rockeduves to the Iland briack . and by weſt	——	5 leagues
From Garnſey to the ſeven Ilands ſouthweſt and by ſouth.	——	15 or 16 leagues
From the Caskets to S. Paul de Lion ſouth weſt	——	29 leagues
From the Caskets to the fourne or Vshant ſ. w. and by weſt	——	41 leagues
From the Caskets to the Lizard, weſt and weſt and by north	——	37 leagues
From Garnſey to the Lizard, w. and by n.	——	17 leagues
From the ſeven Ilands to the Lizard north weſt and by weſt	——	29 leagues
From the ſeven Ilands to the Steart north and by weſt weſterly,	——	24 lea.
From the 7 Ilands to Portland north eaſt and by north	——	32 leagues
From S. Paul de Lion to the Lizard north weſt and by north	——	29 leagues
From S. Paul de Lion to Steart north and by eaſt	——	29 leagues
From S. Paul de Lion to Portland north eaſt and by north	——	40 leagues
From Dover to Dongie Neſſe ſouth weſt and by w.	——	9 leagues
From the Neſſe to Pairlee, weſt ſ. w.	——	3 leagues

Heights.

The point of Struyfaert in	——	45 degrees 45 minuten
The Caskets lye in	——	45 degrees 48 minuten
The ſeven Ilands, or Segets Iſles in	——	49 degrees
Beachy lyeth in	——	50 degrees 48 min.

How theſe Lands doe ſhew themſelves at Sea.

Theſe two figures belong at the AA one to the other.

Grand valley

Fecam.

The land between Diep and Fecam ſheweth like theſe two figures here above, when you ſaile alongſt by it, two or three leagues without the land.

Seynhead

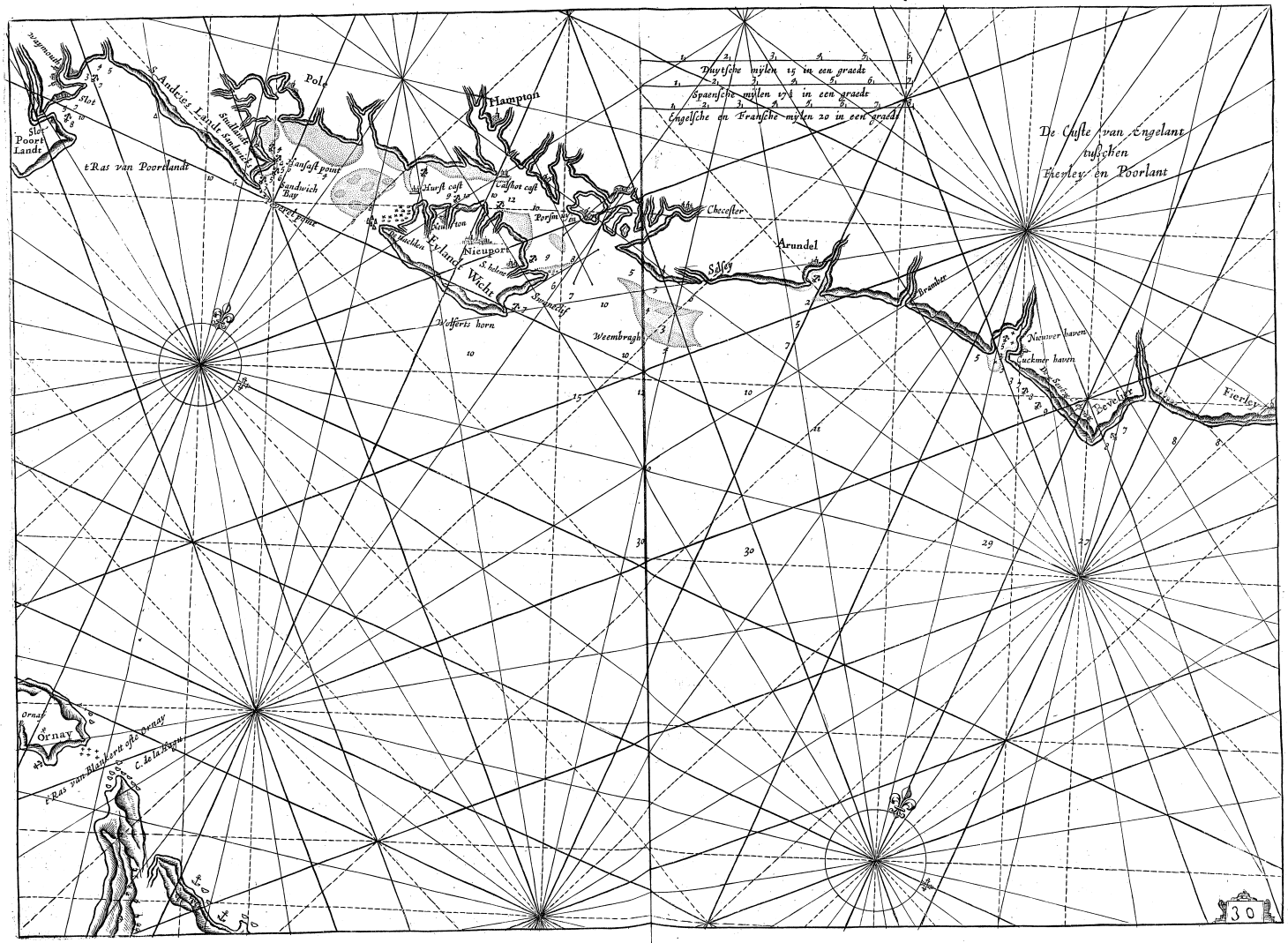
Struyfaert

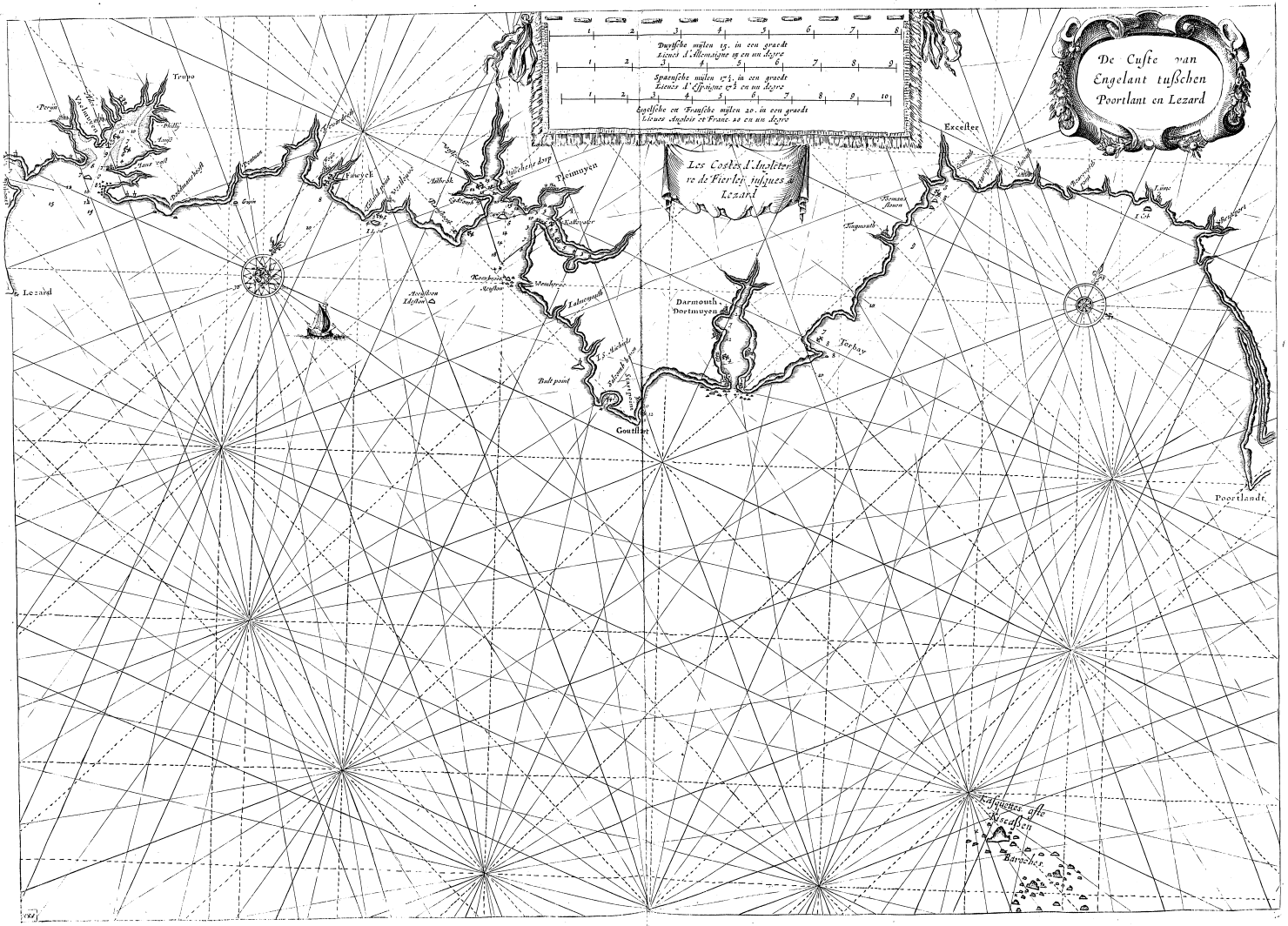
The forme of Struyfaert, and Seynhead, when you ſaile alongſt by them,

Thus ſheweth the land of Cane, when you are 4 leagues off from it.

Thus ſheweth the land of Sherborough, and the land to the weſtwards of it to wards cape de Hague when it is ſoutheaſt 4 leagues of from you.

This


Duytsche mylen 15 in een graede
Spaensche mylen 17½ in een graede
Engelsche en Fransche mylen 20 in een graede
De Custe van Engelant
tusschen
Eversley en Poorlant
Hampton
Pol
Slot
Poort
Landt
t Ras van Poortlandt
S. Andries Landt
Sandwich
Bay
Deal
Nieuport
Eylandt
Wicht
Dolferts horn
Weembrugh
Checesler
Arundel
Salsey
Bramber
Nieuwer haven
Fierley
Ornay
t Ras van Blankart ofte Grenay
C. de la Hogue
30


De Custe van Engelant tusschen Poortlant en Lezard
Les Costes d'Angleterre de Fierlij iusques a Lezard
Duytsche mijlen 15. in een graede
Lieues d'Allemaigne 18 en un degre
Spaensche mijlen 17½. in een graede
Lieues d'Espaigne 17½ en un degre
Engelsche en Fransche mijlen 20. in een graede
Lieues Angloise et Franc. 20 en un degre
Troupo
Porgin
Lezard
Plemuyen
Darmouth
Dortmuyen
Torbay
Excester
Poortlandt
Gourtlier
Bult point
Lalmouth
Meulenaer
Kasteelen
Barcheer

Thus sheweth Ornay when you shall sayle alongst by it foure leagues from the land.

Thus sheweth Ornay with the Caskets, when it is southsoutheast from you 3 or 4 leagues.

Thus sheweth Ornay and the Caskets, when you sayle alongst by them, and Ornay is southeast from you 3 or 4 leagues.

Thus sheweth Garnsey when it is thwart of you about 4 leagues. S. Paul de Lion.

Garnsey, being eastnortheast from you sheweth thus. Obbevrack. La Four.

Thus sheweth the land betwixt S. Paul de Lion, and the Fourne, when you sayle alongst by it 4 leagues from the land.

The ſecond demonſtration,

Wherein is deciphered the coaſt off England from Fierley to the Lizart.

Road under Beachy

THE point of the Neſſe and Beachy lye weſtſouthweſt and eaſtnortheaſt diſtant 8 leagues. Beachy is by the ſeven white Cleeves, the beſt knowne land that a man can ſee any where. To the eaſtwards off Beachy men may anckor for weſterly windes in ſix or ſeven fathom, ſo that the point be ſouth, and ſouth and by weſt from you. To the weſtwards of the point of Beachy, thwart of the weſt end off the 7 Cleeves, right againſt the Chindle, where men run alongſt by into new Haven, men may alſo anckor in 7, 8, or 9 fathom.

A league and a half to the eaſtwards of the point off Beachy neareſt E. N. E. from the point lieth a litle ſand, upon which there is at low water and ſpring-tydes ſcarce two fathom.

Newhaven

At the weſt end of the ſeven Cleeves lieth the River of Cuckmer-haven, or New-haven, which hath two entries, the weſtermoſt entry lieth in by the weſt land, but is not to be uſed, but onely with very ſmall ſhipping, it falleth altogether dry, the eaſtermoſt is commonly the beſt, and lieth northweſt and by weſt in, there is at high water with a common tyde not more then ſeven, and with a ſpring-tyde, 14 or 15 foot water, within, the ſhips lye every tyde dry: But before the village they remaine a float, there they morre with foure cables faſt on 2 green ſhores. Upon theſe entries men cannot well make any reckoning, they keep no certaine depth, when it bloweth a ſtorme out of the ſouth, they are oftentimes caſt too with a chindle, and opened againe with a freſhut.

Shorum.

Shorum is a tyde-haven, where is at high water and ſpring-tydes 18 foote water, but at low water there remaineth no more then 3 foot water, ſo that then it floweth 15 foot up and down. With a common tyde at high water there is 12 foot, and at low water 3 foot depth. The town Shorum lieth a little Engliſh mile within the haven, ſhips (that draw but 8 or 9 foot water) can lie a float a litle beneath the towne at low water, or elſe they lye dry every where.

When you come from the eaſtwards from Beachy or Newhaven along by the ſhoare, you may ſee open into the Haven, before you come thwart of it: But comming from the weſtward, you ſhall not ſee it open before you comme right before it, becauſe the weſt point lieth ſomewhat further out then the eaſt point. From the weſt point runneth off a litle tayle, but at high water you may runne in alongſt over it, otherwiſe you muſt runne in by the eaſt ſhore. Upon the eaſt point ſtand two beacons, which you muſt bring one in the other, and run in ſo right with them, untill you come by the north ſhore, and then in alongſt by the foreſaid north ſhore.

Arundell.

At Shorum ſomtimes there are builded many great ſhips of 3 or 400 tunnes.

About 8 leag. to the weſtwards off New-haven lieth Arondell, a tyde haven, where a ſhip may go in at half Flood, you muſt go in thereby the weſt land northeaſt in. In the entry it is two, and betwixt the two lands 5 fathom deep at high water: but within the haven remaineth at low water 4 and 5 fathom: There you muſt anckor before the village.

Five leagues W. S. W. from Arondell, and 13 leagues weſt and by ſouth ſomewhat weſterly from Beachy, lye the bancks or ſhowlds of the Owers under water, a great league and a half ſeaboard the land.

Owers.

About 2 leagues E. N. E. ſomewhat eaſterly from the ſouth ſide of the Owers, and two little leagues ſouth from Arondell lieth a ſhowld of rocks and chindles, called Faſt-borough-head, as great as an aker of land, which falleth (at low water and ſpring-tide) dry, otherwiſe it commeth not above water, cloſe to it, it is 15 fathom deep. They that ſayle off from the haven of Shorum, and are bound to the weſtwards, muſt not go more weſterly then S. S. W. untill they come in 18 fathom, before they ſet their courſe more weſterly, for feare of this ſhould. About an Engliſh mile N. W. from this foreſaid ſhowld, lieth alſo a ſmkeu rock, whereupon at low water it is no more then 5 or 6 foot water.

Faſtborough-head

About halfe waies, betwixt Arondell and Selſey, runneth off a ledge off Rocks thwart to the ſouthwards from the ſhoare about an Engliſh mile and a halfe into the ſea, called the Bognors, whereof ſome of the rocks fall dry at low water, but the outermoſt are alwaies under water.

The Owers

The ſhowldes or bankes of the Owers, lie about 4 leagues to the eaſtwards of Wight, and lie off a league and a halfe from the land, thwart of them ſtandeth a tower in the land, when that is north northweſt from you, then are you thwart off the ſouthermoſt part off the ſhowld; And if you keep the Culver cliffe off Wight weſt and by north, and weſtnorthweſt from you, comming either from the eaſt or from the weſt, you can take no hurt of the Owers, you may run alongſt by them in twelve fathom upon your lead, without danger. If you faile away from the eaſt end off Wight, eaſt and by north, and eaſtnortheaſt, you ſhall run in 12 fathom alongſt over the eaſt end of them. He that is there well acquainted, may alſo faile to the N. wards of them, through betweene the land and the Owers.

Culver cliffe.

Betwixt the Owers and Portſmouth goeth in a great found or haven, within lieth the town of Chichefter.

Chicheſter

At both the ſides of the Iland Wight men may faile within it, and there come to ankor either under S. Ellens, or before Newport where they will.

For to fayle in at the eaſt end of VVight.

For to faile into the eaſtwards off Wight you muſt bring the eaſter caſtle that lieth to the eaſtwards of Portſmouth over the Lyme-kill (that is, a white ſpot in the land to the northwards off that Caſtle) and keepe them ſo one over the other, untill that the Culver cliffe come within or under the northeaſt point off Wight. Then bring the Limekill over the eaſt end off Portſmouth, and keep them ſo untill that the caſtle to the weſtwards of Portſmouth come to the wood: Thus doing you ſhall not come nearer neither plate nor ſand, to take any hurt off them, and you ſhall come ſo by litle, and litle, before S. Ellens Church. When the Church come two ſhips length within the red point, then you ſhall not come too neare the riffe at the point. Or elſe if you cannot ſee the Lyme-kill, then keepe the Caſtle to the weſtwards of the Culver cliffe, untill that S. Ellens Church come a ſhippes length without the point of the Iland, goe then boldly northweſt in, and you ſhall not come too neare the riffe; And then bring the ſquare Tower betwixt the eaſt end of Portſmouth, and the Caſtle: when the caſtle to the weſtwards of Portſmouth commeth to the eaſt ſide of the wood, then you ſhall not (as here before is ſaid) come too neare neither the plate nor the ſand to take any hurt off them.

Markes of the plate.

When the eaſtermoſt white ſpot ſtandeth a ſhips length to the weſtwards of the caſtle, then you are to the eaſtwards of the riffe; and when the Culver cliffe is covered or hidden behind the northeaſt point off the Iland, then are you alſo within the riffe. The markes off the little plate are theſe: there ſtandeth a ſquare tower within the land, and a caſtle on the water ſide to the E. wards of Portſmouth, thwart from it lieth the foreſaid, Lime-kill: when that commeth to the E. wards of

the foresaid Castle, so that you may even see through betwixt them both, then are you upon the little plate which at low water is not deeper then 20 foot: then standeth the castle to the westwards off Portsmouth at the west side of the wood. But when the foresaid sqare tower commeth to the west side to the foot of the Castle and the Castle by west Portsmouth to the west side of the Wood, there it is deepe at low water upon the little plate 12 foot.

When the square Tower standeth betwixt the east end off Portsmouth; and the castle even betwixt the Lyme-pit and the Tower, and the Castle by west Portsmouth in the west side of the wood, there it is at high water, tenne fathom deepe.

When Saint Ellens Church lyeth fouthwest and by west from you, then lyeth fourtheast end of the plate northeast and by north from you, and the west end north and by east.

Nomans-and. From the point off the Roade of Newport eastwards lieth a broad land alongst the floare; called Nomans-land, which falleth allmoft dry at low water, it is so fteepe, that halfe a cables length off from it, it is twelve fathom deepe: upon the high land of Wight thereabouts stand two or three milles. If you come neare the shore, that the foresaid milles bee hidden behinde the foresaid high land, you shall not misse to come a groun lagainst that foresaid sand, but so long as you can see theſe milles, you shall goe cleare of it.

The Roade off the Cowes is the best Roade in Wight over against, betwixt that and Calshot Castle, lyeth a hard sand neareth the north shoare, lying from thence to the westwards alongst the fareway, almoſt so farre as thwart off Newton, called the Brambles; at low water and spring-tydes it fal-

The Brambles. leth almoſt, dry and then the sea breaketh much upon it: so the northwards of it goeth also a channell through, but it is not to be used, but with small shipping.

For to saile in at the west end of Wight, you must runne right in with the Needles, (they are high sharpe Rockes a Maſtes lying at the West end of Wight) bring then the innermoſt point off Wight; or the Castle that standeth upon the chindle over against that point, called Hus castle a little without, or to the northwards of the Needles, saile in thereupon, untill you come to the Needles, leave them then on the starboard side of you, and run in within a cables length alongst by them for to avoid the bancks which lye off from the chindle to the northwards of the Needles, of the west end of Wight allmoſt to the Needles. Betwixt the bancks es called the Swingels, and the Needles, it is not very broad, and at low water 5 fathom deep. When you saile in here, you muſt caſt your tydes well. The fore-flood falleth strong upon the bancks. When you are then come within the Needles, then edge a little more off from the shoare unto Hus Castle that standeth upon the Chindle, for to avoid some Rockes which lie alongst by the land under Water. Being come within the Castle or Chindle, there it is wyde and broad, leave two third parts off channell on larboard side, and one third part on the starboard side, saile so in untill you come before the village Newton, and anckor there in nine or ten fathom, or elſe saile forth) if you will) about the point off the Cowes, and anckor there before the haven of Newport in tenne or twelve fathom, there is the best Roade, and, the best lying of all the Roades in Wight. The Haven or Roade before Newport lyeth from the foresaid Hus Castle upon the Chindle northeast and by east, and eaſtnortheaſt about two leagues a sunder.

From the Needles of Wight west and by south about three Peverel leagues, lieth the point of Saint Albons land, called Peverell point, from it lye off some little Rockes to the eastwards. A point, and little to the northwards off that point is a Baye called the Bay witch bay. of Sandwitch, there is a good road for them that are bound to the westwards; If you will goe to ryde there coming from the Westwards, you may take the sounding of Saint Albons land, and runne aboard the point a foure or five fathom at a halfe flood, and you shall take no hurt of those little roches. Being gotten about the point, edge by it up to the westwards towards Sandwitch. A little to the Northwards of Sandwitch in the Baye, lieth round Hommock, & thwart off it somewhat within the land stand eth a mill; bring that mill to the south side of the round Hommock, and saile soo in untill you come in foure or three fathom, and anckor there so deepe or should as you will, there it is good lying for southwest or southsouthwest winds.

A little league north and by east from the foresaid point, right west from the Needles off Wight, lyeth another point, called Hanfaſt point, to the northwards of it lieth a little Tounе, called Studland, before it is also a good roade. Upon the outermoſt part off that point, is a hole through the land, where men may see through, and a little without the point standeth a high steepe rocke like a Maſt, allmoſt like the Needle at the west end of Wight. For to come to ride before Studland: you muſt saile about the second point, with the hole or the steepe rocke, in foure or five fathom, and goe in W.N.W. towards Studland: a little to the southwards of it lieth a little valley, bring that W. S. W from you, and goe towards the shoare, in foure or three fathom and a halfe, there is the best roade, & lying there, you may see the foresaid hole in the point. Studland.

A league to the northwards of that foresaid point with the hole, lyeth the haven of Poole, for to saile in there, comming Poole. about the foresaid second point with the steepe rocke, you muſt goe on northwest, or somewhat more northerly, and then you shall right a head off you, a high flat hill, which standeth higher than the one other land thereabouts, keepe that betwixt the two shoares, and run in so right with. If you muſt turne toe and againe, then spare not to use your lead, and runne not further over to the westwards, then that the flat hill come to the west-land, so soone as it beginneth (as it were) to touch it, you muſt caſt about, or elſe you should be saſt aground: And after you have caſt about, runne not further over to the eastwards, then that the foresaid high flat hill commeth even to the eaſt sand-hill, which is a high, gray, and sharp sandhill, lying at the East side. If you keepe theſe foresaid markes in this manner, you shall have there going in at halfe flood, water enough, there remaineth upon the shoulder at low water, ten and eleven foote, but it flowes there no more then five foot up and downe. It floweth there twice in a tyde. A southeaſt and northwest Moone maketh there full sea: Also a south & by eaſt & north & by west Moone once more, that commeth to passe by reason off the fore-ebbe that commeth out off Wight, When you come within the entry, go then northnortheaſt on, and keepe the beacons that stand on the eaſt land on the starboard off you, and runne in different close alongst by them. The shoares are on both sides steepe, and the channell is not wide, without the channell it is should or flat. This Pilots water.

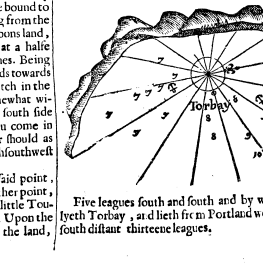
From the west end of Wight to the point of Portland, the Portland, course is W.S.W. eleven leagues, but from Dunnose, the S.W. point of Wight, west and by south thirteene leagues.

If you will goe to anckor under Portland (comming from the west, then come within two cables length, or a shot or a caſt peece about by the point of Portland, and being come about Road under the second point, edge up to the westwards untill you come dey port. before the castle, and anckor there in 7, 8, 9, 10 or 11, fathom, under. so that the point of Portland doe lye south and by eaſt, and S, S. E. from you, there you shall lye land-lockt for a S. and S, by E. winde. With a southwest and a S. S.W. winde, men muſt be very mindfull of terrible rippeling of the race of Portland, which beginneth a little to the westwards off Portland, and endeth a little to the westwards of S. Albons. The ground in that race is also very uneven, and should, so me times seven, otherwhile s ten, and also fifteen fathom deepe.

About a league to the northward off the road of Portland lieth a little Towne, called Waymouth, with a tyde-haven, Waymeur. before it men may anckor in 4 or 5 fathom.

From Portland to Exmouth, the course is westnorthwest thirteene leagues; betwixt them both lyeth a litle Iland close by the land called Cob. Before Exmouth men may ride (at I.Cob. the south end of the Chindle, which lieth before the haven) in seven or eight fathom, so that the rockes of Tomansstones doe come to lye south and south and by eaſt from you, there it is good ground, and landlocht for a south winde.

TORBAY.



Five leagues south and south and by west from Exmouth lyeth Torbay, and lieth from Portland west, and west and by south distant thirteene leagues.

For

For to goe into the roade of Torbay, you muſt bring the west point South and by eaſt and Southfourtheaſt from you and anckor there in 7 or 8 fathom, you shall lye land-lockt for South and South west winds. At the northeaſt side of the bay is also a tyde-haven, before it, it is good anckor ground in foure or five fathom, according as you will lye neare or farre from the shoare.

Dartmouth. Three or foure leagues southwards, or to the westwards off Torbay, lieth the haven of Dartmouth, which hath a narrow entry, lying in betwixt two high lands, upon each side off the haven standeth a little Castle, in time of warres they were wont to shut it over with a chaine, on the West-side standeth a litle Church on the high land. For to saile in there comming from the Steart or from the westwards you muſt run in alongst by the Westerland, so farre to the eaſtwards unt il you bring the kay of the village (that lieth on the eaſt side of the haven) in the middeſt of the entry of the haven, and saile so in, keeping the middeſt of the haven betwixt the two lands, and you muſt bee very ready with the boat (if there should come any forefluges from of the high land) for to row in. Being come in, edge over to the West-side, before the Brewhouſe and anckor there in ten or twelve fathom, or before the village on the east-side where you pleaſe.

At the eaſt side off the Range lieth a suncken Rock, the markes for to avoid it are theſe. To the eaſtwards of Dartmouth is a red point, which below by the water is black, and in the red lieth a white stone, when the white stone commeth over the black point, then are you thwart of the suncken rock, but if you see the kay of the village and doe as before is saſd, then you shall not come to neare that suncken rock to take any hurt of it.

Betwixt Dartmouth and the steart, neareſt to Dartmouth standeth a spire steeple indifferent high and white, called Talkman, that is a very good marcke to know the haven of Darthmouth by it.

The steart lieth from Dartmouth Southweſt distant three leagues. Under the point of the Steart at the eaſt side is a good roade for westerly Windes, betwixt the little Church that standeth upon the high Land, and the point of the Steart in tenne or eleven fathom, so that the point lye South-weſt from you.

Salkom. A little to the eaſtwards of the westermoſt point off the Steart lieth a haven, called Salkom, when you come from the West, it sheweth it selfe open, the west side of it is ragged and the eaſt side goeth sloping downe, close to the West point lieth a rocke, or a rane off rockes, therefore you muſt give it a good birth, and leave the rockes on the larboard side: Further, you may see the breacks that can doe you hurt. Being come within the point, you can take no hurt of neither of both shoares. Upon the barre or showlde s of the entry remaineth at low water with a spring tyde, not lesſe then eleven foot water, and again within it is at least three fathom deep.

Six leagues to the westwards off the Steart lyeth the found Plymouth of Plymmouth, at the outermoſt East point of the found Newsance. lieth a high round rock, called Mewestone, the west point is called Ramehead, betwixt them both goeth in the South Plymmouth North northeaſt in, it is broad and deepe. A little to the northwards of Ramehead is a faire sand-bay, where men may anckor close under the land, in nine and tenne fathom. Three leagues South a little eaſterly from Ramehead, lieth a Eddyſtone Rock above water, called Eddy-stone. The point of Plymmouth lieth from the Eddy stone north and by eaſt, and northnortheaſt, distant about foure leagues. In the found by the Land off Plymmouth, lieth a little Iland, which is saſt to the west side with a riffe or rane off Rocks under water, so that men muſt saile alongſt to the eaſtwards of it, whether they be bound into Catwater, or into Hamoaſe, the weſt harbrough. If Catwater. you will goe into Catwater, then runne in betwixt the Iland, and the point on the eaſt side in with the land of Plymmouth, untill that you see Catwater open on ſtarboard side of you, goe then into the eaſtwards betwixt the point of Plymmouth, and the foresaid East point on the ſtarboard side of you, leaving the moſt part the channell on the ſtarboard side of you, until you come within the point, and anckor there right against that high steepe norther-land, there is at low Water with an ordinary tyde foure and five fathom deepe.

When you saile into Catwater, you muſt take heed, and give a good birth to the Souther point off the entry off Catwater, for there lye off to the foresaid point, a ledge off Rocks under water, neare about two cables lengths from the Land, and upon the point of the ledge or showld, lieth a buye, where is at halfe flood about twelve foot water, which buye you muſt leave on your ſtarboard side in going into Cat-water, and when you have Cat-water altogether open, you may run into the eaſtwards, leaving (in the entry of the harbour) two third parts of the channell on the ſtarboard side, as before is saſd, becauſe of the South shoare is somewhat flat off, there lying a sandy bancke, which reacheth to the second point of the south shoare of Cat-water.

A little to the eaſtwards of that foresaid little Iland, lyeth a rocke under water, upon which it is at low water not deeper then two fathom. For to saile within the Iland, you may goe into the eaſtwards, or to the westwards of the rock according as occaſion shall serve. If you will saile into Hamoaſe, to the westwards of the rock, then take the founding of the Iland in foure or five fathom at low water, and runne in so by it, untill that the Vither Village (lying to the northwards a little within the land) come in the west side of the valley on the north shoare, then are you to run through betweene the Iland and the rocke, and to the westwards off the rock. Wit h in the Iland upon the land of Plymmouth, standeth a wall or hedge, when as you see that onendling, and the chappell of the foresayd vither village commeth to the north-side off the Valley, and Cat-water commeth open, then doe you runne over the rocke, betweene the Iland and the maine men may anckor in 12 and 13 fathom.

If you bee bound into Hamoaſe, you muſt runne in betwee- Hamoaſe. e the Iland and the land off Plymmouth, and then in an iddeit ne channell betweene the two Lands, until that the entry off Hamoaſe be open, runne then into the northwards as the channell leadeth, untill you come in about the west point, and anckor there in fixteen, fifteen, and twelve, or ten fathom. In the narrow it is fifteene, sixteene, seventeene, and alſo twenty fathom deepe, and betweene the Iland and the maine, eight, nine, tenne, and twelve fathom.

About halfe a cables length to the eaſtwards off the Paſſage way going into Hamoaſe, lieth a suncken rock under water, called the German, about two great shippes length from the The Ger- ſhoare and at low water hath not above foure foot water upon man & fun- it. And when men doe come any thing neare this foresayd ken rock. suncken rock going into Hamoaſe, either with the flood or the ebbe, the t de will set them right upon it, if it be calme. Therefore to avoyd it, men muſt (with calme weather) give this foresaid suncken rocka good birth, until they bring the houſes of the Fishers-village, called the Stone-houſe, open of the eaſter point of the Paſſage way, and then runne in over towards the north shoare, untill they have hidden the Iland in the foresaid eaſter point of the paſſage way, for to avoyd a suncken Rock that lyeth off to the eaſtwards from the north point off Suncken the Beach of the West-side off the paſſage way, a halfe cables rocks. length of, and then runne amids the channell into Hamoaſe. Upon this foresaid suncken Rock at low water, is not above 3 or 4 foot water.

In the found of Plymmouth, not farre to the northwards of the Mewestone, lye two or three suncken rockes, upon which Suncken remaine at low water not more then three or foure fathom rocks. water, the markes of them are theſe: To the eaſtwards off Plymmouth stand eth a Tower with a Mill, and to the westwards off the foresaid little Iland stand eth a Gentlemans houſe, with the little tower or turret off that houſe commeth over the point on the west side of the Iland, and the foresaid tower and mill to the eaſtwards of Plymmouth come one over the other, then are you upon the innermoſt suncken rocke or shawld, which at low water foure fathom deepe. But when the point off Hamoaſe commeth even without the point to the westwards off the Iland, and the foresaid Tower and mill alſo one in the other; Then are you upon the outermoſt rocke, where it is at low Water and spring-tyde three fathom and a halfe deepe.

From Kamehead westſoathwest five leagues, lyeth Foy, and betwixt them on the coaſt lyeth a little Iland, a little to the eaſtwards of a point, called Talland-point, thwart of West-Louwe, called Louw-Iland, you may anckor there to the eaſtwards Lowland. of the Iland in 5 or 6 fathom.

Foy is a broad haven, where a ſhip may go in at halfe flood, at the eaſt side off the haven standeth a little Church with a little steeple, and on the weſt side a white Church, somewhat greater then that upon the eaſt land, with a square steeple at the west end of it.

For to saile into Foy, you muſt have at leaſt a halfe flood, and runne in midſt the channell betwixt the two points, and Foy. being come within, then chuſe which side you will, but the moſt water is by the weſt land, betweene the ſtakes and the Tower that standeth upon the weſt land. Being come within the Stakes (as you come in by the Weſt-land) then beare somewhat off presently from the weſt shoare, almoſt into the

middle of the channell, ſtearſt to the weſt ſhoare, untill you come before the Village that lieth on the Weſt ſide, there is a deepe docke, where a ſhippe that draweth ſixteene foot water may lye a float at low water. In the ſayd dock may 3 or 4 ſhippes lye.

If (when you come in by the eaſt land) you deſire to bee in the foreſaid docke or poole, then fayle in untill you come within the ſtakes, and then edge over off from the eaſt-land untill you come neareſt the weſt land; for to avoyd a Flat, which lieth by the eaſt ſhoare alongſt the haven, and begin-neth againſt the firſt houſe of the Weſt-Village. If it ſhould happen, that you could not lead it in with a ſayle, then let your anckor fall without the ſtakes, and warp in with hawſers, untill you come into the foreſaid poole.

You may alſo ſayle ſo farre in, that you may ſee a wall on the weſt ſide of the haven, where lieth a village behinde it. A ſhippes length to the ſoûthwards of that wall, it is good lying by the eaſt land, being morred by foure cables, there may alſo a ſhip ride a float that draweth ſixteene foot water. Yoy may alſo fayle further in alongſt by that Swach that lieth on the weſt ſide, wherein the mill ſtandeth, but come not to neare the north point of the Swach, for there by it lieth a rock under water, being paſt that you may morre your ſhip in the middeſt of the channell, there is beſt lying for ſhippes that draw much water.

Dodman. Foure leagues ſouthweſt from Foy, lieth the point of Dodman, and two leagues to the Weſtwards of it lieth the haven of Falmouth. The point of the Dodman is double land with a round hill, which to the Weſtwards goeth ſloping downe ſomewhat towards the Weſt end ſtandeth a mill with a ſhurp tower, and ſome litle houſes upon the land, ſomwhat to the weſtwards, men may ſee the caſtle of Falmouth upon a round hommocke againſt the high land. This land is very good to known when you come from the Weſt, or from the Lizart.

Upon the Weſt point of the haven of Falmouth ſtandeth a Caſtle upon the high land and in the entry neareſt the Weſtſide, lieth a great rock above Water, you may ſayle about it or both ſides, at the inner ſide of the eaſt point lye alſo ſome roks of from the ſhoare. For to ſaile in there to the eaſtwards, alonſt by the foreſaid rocke, you muſt runne in within two cables lengths, alongſt by the eaſt land leaving the foreſaid rocks on the ſtarboard ſide, and the great rocke on the larboard ſide, and ſo ſaile right in with the high land that lieth on the Weſt ſide within the haven. Withiu in the haven ſtandeth on the Land a white Chalkye ſpot, alſo a litle wood off trees, keepe them over the North point of the foreſaid high Weſt-land, and ſaile ſo right in with them, keeping them ſo untill you come neare them, you ſhall finde ſo at halfe flood, that betwixt the foreſaid Caſtle upon the weſt point, and the eaſter Caſtle that ſtandeth on the eaſt ſide, within the haven, over againſt it, or a litle within the Cattles. When you ſhall then come by that foreſaid high Weſt-land, runne alongſt by it, unto the northend of the ſame, and anckor there in twelve, thirteene, or fourteene fathom. You may alſo from thence edge over towards the eaſt lrnd, and anckor there under or behinde the banck, that lieth of from the eaſter Caſtle alongſt the middle of the haven, in 6, 7, or 8 fathom: the banck falleth almoſt dry at low water, and is ſoft ground, ſo that the ſhippes ſit in the eaſe, when they come there a ground.

For to ſaile into the weſtwards of the foreſaid great rock, you muſt take the ſounding of the weſt land, where the Caſtle ſtandeth upon, in five or ſix fathom, being ſomewhat within the rock, runne (as before is ſayd) towards the Weſt-land. To the weſtwards of the rock it is in that channel ſix and ſeven fathom deepe at halfe flood, but in the channell to the eaſtwards of the rock, ſeven and eight fathom.

Foure leagues ſouth and by weſt from Falmouth lieth the eaſt point of the Lizart, betwixt them both lieth a haven, cal-led Helford, which is litle ufed of ſhippes. At the ſouth ſide of Helford. the haven, lieth a ſteepe point, and on the north ſide a low ſharp point. Within the haven on the ſouth-ſide, ſtandeth a Gentelmans houſe beneath at the ſtraud, and upon the hill ſtandeth a tuffe of trees, you muſt keepe theſe one in the other, and runne in ſo a middeſt the channell into the entry of the haven. On the northſide ſtand alſo two or three trees, theſe come a maſts length to the weſtwards of a litle houſe that ſtandeth in a white ſandy bay, thereupon you may ſaile in alſo a midſt the channell; it is a ſhort in-let, being come within, you may anckor in ſix or ſeven fathom. Upon the ſouth ſide ſtandeth alſo a ſharpe Tower, and upon the north ſide a litle Caſtle upon the ſteepe land.

The Lizart hath trees points, the northermoſt is called the Blacke-head, from that toe the ſecond the coaſte lieth ſouthweſt and by weſt, & alongſt to the third about weſtſouthweſt, or weſt and by ſouth: from the ſecond or middlemoſt point, lye to ſeawards ſome rocks a cables length, or a cables length and a halfe of, called the Stryggs.

To the northwards of the northermoſt, or eaſtermoſt point of the Lizart, betwixt Helford and the foreſaid point lye ſome rockes a great league off from the land, called the Mannackles; Mannacles
and from the Harbrough of Falmouth, and eaſt-ſouth and by eaſt from the Harbrough of Falmouth, and eaſt-northeaſt from the foreſaid Blacke-head, where off many off them are above water at low water, and ſome of them at high water remaine uncovered. Betwixt them and the ſhoare it is very foule and rocky, ſo that men canuot runne through betwixt them without great danger.

He that commeth out of Falmouth, and is bound to the weſt wards, muſt not goe more ſoûtherly with an ebbe the ſouth-ſoutheaſt, or ſoutheaſt and by ſouth according as the winde ſhall be, for to runne cleare of theſe foreſayd.

Of the tydes and Courſes of the ſtreame.

In the channell of Winchelſey a ſouth and by eaſt moone.
At Beachy by the ſhoare a S. S. E. and N. N. W. moone.
In the fareway thwart off it, a ſouth and north moone.
From Beachy to the Neſſe e.n.e. and weſt ſoutheweſt.
At beachy by the ſhoare before the ſeven Cleeves, the flood falleth eaſt by ſouth, and de ebbe weſt and by north.
From Wight to beachy E. and by N. and w.and by ſouth, thwart of Wight, before Dunnoſe, a ſouth and by eaſt moone maketh full ſea.
At S. Ellens and the Cowes a f.f.e. moone.
At Hampton at the kay, a S. and N. moone.
Within the Needles of Wight a ſoutheaſt and by ſouth moone.
Before the haven of Poole a ſoutheaſt and northweſt moon maketh high water: alſo a ſouth and by weſt moone.
Thwart of Portland in the channell a S.S.E. and n.n.weſt moone.
From portland to Wight, the flood falleth eaſt and by north and the ebbe weſt and by ſouth.
In Dartſmouth and Torbay a weſt and by ſouth moon maketh full ſea.
Thwart of the Steart in the channel, a w.n.w.& e.ſ.e. moone.
From the Steart to Portland in the middeſt of the channell, the flood falleth eaſtnortheaſt, and the ebbe weſtſoutheaſt.
Thwart of Dartmouth by the land, the flood falleth n. e. and by north, and the ebbe ſoutheaſt and by ſouth.
Thwart of Torbay towards Exmouth in the baye, the flood falleth north-northeaſt, and the ebbe ſouthſouthweſt.
In Plymmouth and Foy a weſt and by ſouth, and eaſt and by north moon maketh the higheſt water.
Thwart of Foy in the channell an eaſtſoutheaſt moone.
A lea-board of Falmouth an eaſt and by ſouth, but in the haven of Falmouth an eaſt and by north moone.
At Helford and at the Lizart, by the land, an eaſtſoutheaſt and weſtnorthweſt moone maketh the higheſt water.
From the Rame head to the Steart by the land, within the Eddy-ſtone, the flood falleth eaſtſoutheaſt, and the ebbe weſtnorthweſt.
From the Dodman to Rame head, the flood falleth eaſtnorthеaſt, and the ebbe weſtſoutheaſt.
From the Lizert to the Dodman, northeaſt and ſoutheaſt.
In the channell betwixt the Lizart and the Steart, thwart of Foy, the flood falleth eaſt and by north, and the ebbe weſt and by ſouth.

Of the Depths.

Betwixt Winchelſey and Riccardy in the middeſt of the channel it is deepe 26 and 27 fathom, upon ſuch depth men may ſee Fayerley and the land off Dover.
Without Beachy thwart of the ſeven Cleeves it is deepe 28 and 30 fathom.
In the offith thwart of Wight it is deepe 38 fathom, in ſuch depth men may ſee the land.
In the channell betwixt Portland and the Caskers it is 40 fathom deepe, when it is cleare weather, men may ſee the land on both ſides: the nearer England the ſhowlder towards the Caskers it is deepeſt.
The Steart and the land of Dartmouth men may ſee them both in five and forty fathom.
When you have the high land of Plymmouth north from you, you may ſee it in fifty fathom, it is high double land, and ſheweth it ſelfe firſt in two hilles, that ſame high double land within the land, you may ſee it from thwart of Foy untill you come thwart of Dartmouth.
The Dodman you may ſee in 42 fathom of From the Lizart to the Steart.
The Lizart you may ſee in five and fifty fathom, there the ground is white and red ſhelly ſand.

Courſes and diſtances.

From Fairlee to beachy weſt ſoutheweſt	5 leagues
From beachy to the Owers w. and by S.	13 leagues
From thwart of the Owers in 22 fathom unto Dunnoſe the ſouth poyne off Wight weſtſoutheweſt	5 leagues
From beachy to blackneſſe eaſt	20 leagues
From beachy to Struyfert ſouth	24 leagues
From beachy to the Caskers S.w.and by weſt	27 leagues
From Dunnoſe to the ſouthermoſt point of wight, unto the Needles of wight, weſt and by north and weſtnorthweſt	4 leagues
From the weſt end, or the Needles of wight, to the point of S. Albons land weſt	8 leagues
From the Needles of YVight to portland weſt and by ſouth and weſtſoutheweſt 11 leagues	
From Wight to Deep eaſtſoutheaſt	37 leagues
From the eaſt end of wight to Struyfaert S.E. ſomewhat ſoutherly	29 leagues
From VVight to the Caskets. ſoutheweſt and by ſouth	20 leagues
From portland to Seyaleed ſoutheaſt and by eaſt	37 or 38 leagues
From portland to the Caskers ſouth and by eaſt	23 leagues
From portland to S. Paul de Lion ſoutheweſt and by ſouth	40 leagues
From portland to Vshant ſoutheweſt	35 leagues
From portland to Exmouth weſtnorthweſt	15 leagues
From Torbay to Dartmouth ſoutheweſt	2 leagues
From Dartmouth to the Steart ſoutheweſt	3 leagues
From portland to Torbay weſt, ſomewhat ſoutherly	13 or 15 leagues

From

From portland to Dartmouth w.ſ and by S.	16 leagues
From portland to the ſteart weſtſoutheweſt wetherly	18 leagues
From the ſteart to the Caskers eaſtſoutheaſt	19 leagues
From the ſteart to the Sept Iſles, ſouth and by eaſt eaſterly	24 leagues
From the ſteart to S. Paul de Lion ſouth and by weſt	29 leagues
From the ſteart to Vshant ſoutweſt and by weſt	45 leagues
From the ſteart to Ramehead, the courſe is weſtnorthweſt	8 leagues
From Ramehead to the Iland off Iowe w. ſ.w.	2 leagues
From the ile of Iow to Foy, weſt	3 leagues
From Foy to the Dodman S.w.	4 leagues
From the Dodman to Falmouth w. and by S. and w. ſ.w.	4 leagues
From Falmouth to the Lizart S. and by w.	4 leagues
From the ſteart to the Eddyſtone w. or a litle more northerly	7 or 8 leagues
From the Eddyſtone to the Ramehead n. a litle weſterly	3 leagues
From the Ramehead to the Dodman weſt ſoutheweſt	3 leagues
From the Dodman to the Lizart S.w.	7 leagues
From theſteart to the Lizart w. and by ſouth	20 or 21 leagues
From the lizart to Garnſey e. and by S.	37 leagues
From the lizart to the Sept Iſles, or ſeven Ilands, the courſeis S. E. and by E.	27 leagues
From the lizart to Vshant S.	29 leagues
From the lizart to C. de Finiſterre S. S.w.	153 leagues
And that courſe goeth about 5 leagues without the cape.	
From the lizart to Teneriffe S. ſ.w.	466 leagues
From the lizart to Tercera S.w. and by w.	386 leagues

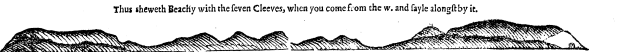
Heights.

Dunnoſe to the ſouthermoſt point of Wight lieth in	50 degrees 36 minuten
Portland lyeth in	50 degrees 30 minuten
The ſteart lyeth in	50 degrees 12 minuten
Or as ſome will hold, more northerly	
Torbay lyeth in	50 degrees 25 minuten
The lizart lyeth in	50 degrees

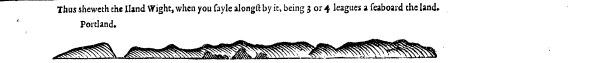
How theſe Lands doe ſhew themſelves at Sea.

Beachy ſheweth thus when you come from the weſt.

Thus ſheweth Beachy with the ſeven Cleeves, when you come from the w. and fayle alongſt by it.



Thus ſheweth the Iland Wight, when you fayle alongſt by it, being 3 or 4 leagues a ſeaboard the land.



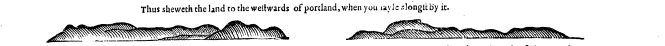
Thus ſheweth S. Albons land, with portland, to the weſtwards of it, when you fayle alongſt by it, being to the eaſtwards of portland.

Thus ſheweth portland when you come from the weſtwards.

Thus ſheweth portland, when it is north and by weſt from you ſixe leagues of

Thus ſheweth portland, when you come from the eaſtwards.

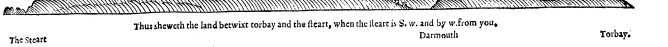
Thus ſheweth the land to the weſtwards of portland, when you fayle alongſt by it.



The land betwixt Torbay and the Steart ſheweth thus.

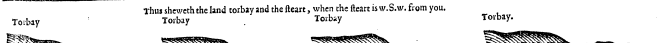
Thus ſhaweth the high land to the eaſtwards of Plymmouth.

Thus ſheweth the land betwixt torbay and the ſteart, when the ſteart is S. w. and by w. from you.

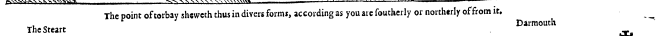


Thus ſheweth the land torbay and the ſteart, when the ſteart is w.S.w. from you.

The point of torbay ſheweth thus in divers forms, according as you are ſoutherly or northerly off from it.



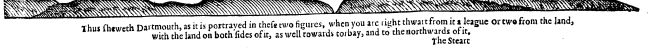
Theſe two figures belong one to the other at the two croſſes.



Thus ſheweth Dartmouth, as it is portrayed in theſe two figures, when you are right thwart from it a league or two from the land, with the land on both ſides of it, as well towards torbay, and to the northwards of it.

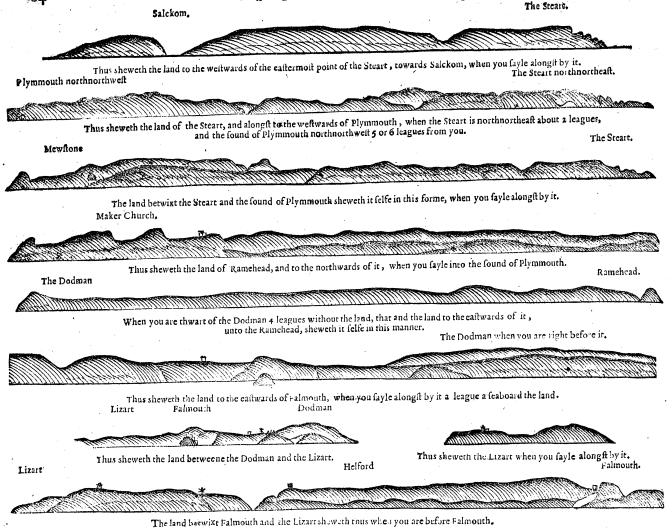
Thus ſheweth the Steart, being north from you 2 or 3 leagues.

The Steart being north from you 7 leagues, ſhewet thus.



When the fleart is northeaſt from you, it appeareth in this forme, and then the point goeth flat downe.

Thus



The third demonstration,

Where in are deliniated the coaſted off England, from the Lizart, and Englands end, to the C. off Cornwall, the Sorlings, and the channell off Briſtow.

The Lizart

HE Lizart is a low point, where some rocks lye from it, upon the S. end ſtandeth a Tower, and upon the high land towards the N. end ſtandeth another tower which is ſharpe.

Mounts-bay.

About five leagues northweſt from the Lizart, lyeth a great Baye, called Mounts-bay, at the weſt point of that Bay lieth a litle Iland, whereupon ſtand two litle ſhore towers like beacons, at the eaſt ſide in the bay lieth another high litle Iland, whereupon ſtandeth a Caſtle, called S. Michaels Mount. At the eaſt ſide off this

S. Michaels Mount.

Baye, lieth a great rane of rocks, which lye off into ſea a league from the land, whereof men muſt take good heed in dark wheather; from theuce to the ſouthward towards the Lizart, the coaſt is all alongſt full rocks, but theſe lye not ſo farre off from the ſhore.

For to ſaile into Mounts-bay, comming from the Lands-end, or from the Lizart, and being to the Weſtwards off the foreſayd rane off Rocks, you muſt runne in right with the litle Iland called S. Michaels Mount, ſo long untill you come within a halfe league off it, then edge up to the Weſtwards towards the Bay, untill that you ſee that foreſayd litle Iland, with the two litle ſhort towards at the Weſt point, leave it on the larboard ſide, and runne in cloſe alongſt to the northwards off it, for it is very cleane, but leave the Caſtle a great wayes on the ſtarboard ſide, being foule about. Being come within the litle Iland at the Weſt point, you ſhall ſee within it a great ſandy baye, anckor there in ſeven or eight fathom Eaſtſoutheaſt and ſoutheaſt winds doe blow there right open in, for all other winds you lye there landlockt.

Lands end of England

Ix ure leagues to the Weſtwards of Mounts baye lyeth the Lands end off England, and lieth from the Lizart Weſtnorth-Weſt diſtant nine or ten leagues. About a leagues S. E. from the Lands-end and a halfe league without the land lyeth a ſuncken rock, which at low water commeth even above water.

Thwart of that rock ſtandeth a Church upon the land, when you can but even ſee that over the high land, then are you thwart of the foreſaid rock, to wit, even as farre from the land as the rock, but when the Church is hidden behinde the high land, that you cannoth ſee it, then are you nearer to the land then the rock, or within the rock towards the land, and ſo you ſhall goe through betwixt it and the land.

Upon the Lands end off England lye two round hillis, when you get ſight off them you ſhall ſee upon the higheſt a ſpire tower, comming ſomewhat nearer, you ſhall ſee upon the outermoſt end, in the low land, another ſpire tower, thereby is the Lands end reaſonable well to be knowne. The grounds thereabouts whitiſh ſand, with red ſand, and mingled with ſhelles.

From the Lands end unto the C. off Cornewall, or to the litle Iland Breſam, lieth the coaſt moſt N. about 5 leagues.

At the Lands end lye ſome Rocks, you may runne in within them as well to the northwards as to the ſouthwards, and come to anckor in eight or nine fathom: to come in there from the ſouthwards it is narroweſt, and tenne fathom deepe: from the northwards it is beſt and broadeſt, and eight and nine fathom deepe, buth on the left ſide cloſe to the north point off the Lands end lieth a ſuncken rock, which you muſt avoyd when you ſaile in there.

Rocks or the lands end.

Silly lieth from the Lands-end Weſtſouthweſt diſtant 8 leagues, but from the Lizart weſt 16 or 17 leagues.

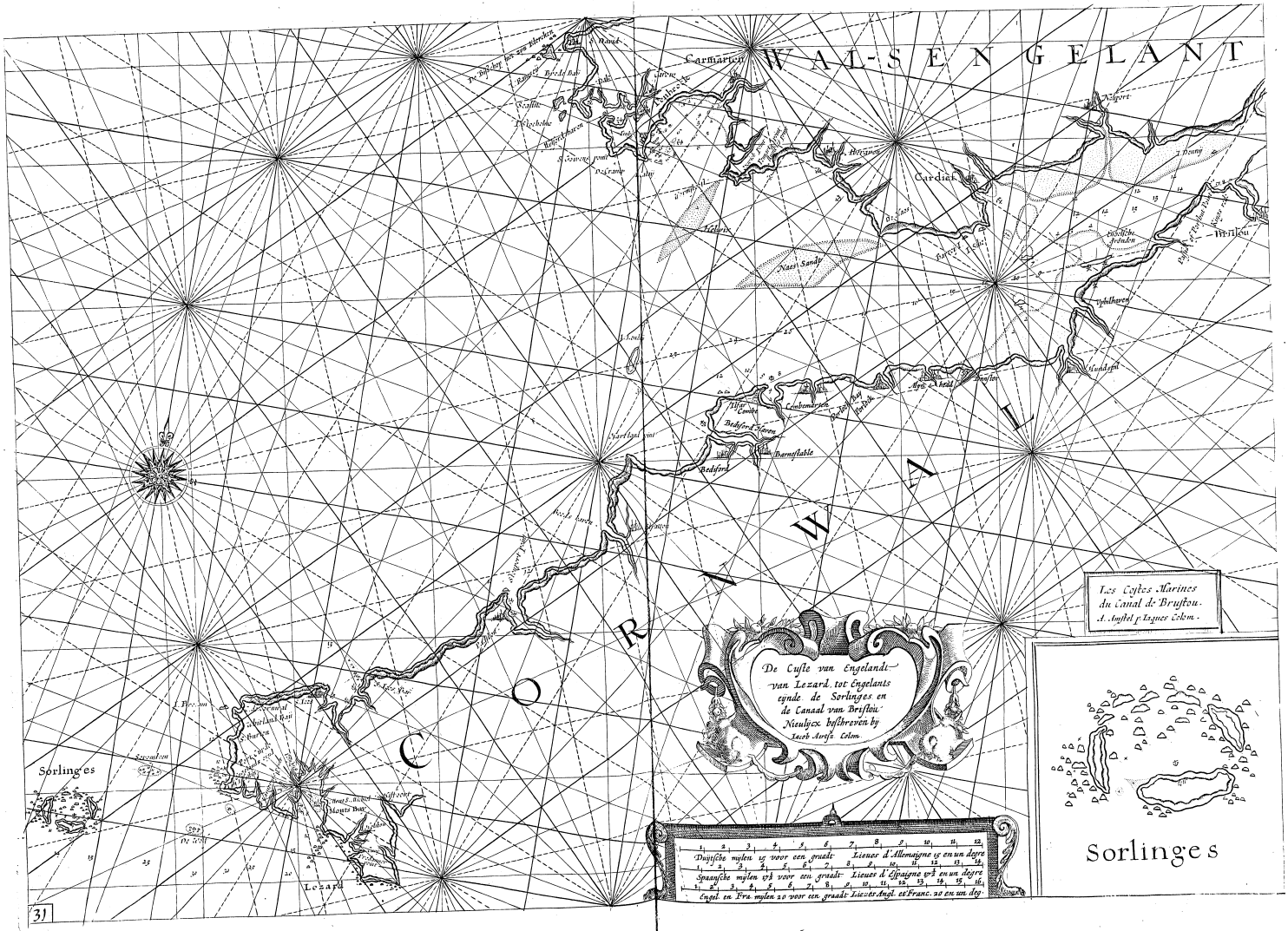
Betweene the Lands-end and Silly lye the Seven-ſtones W. S. W. and W. and by ſouth foure leagues from the Lands-end, and northeaſt and by eaſt, and eaſtnortheaſt, almoſt 3 leagues from Silly, that is, a rahe off rocks which come not above water, but allwayes breaketh upon them.

Seven-ſtones.

Southſouthweſt and ſouthweſt and ſouth, 3 or 4 leagues from the Lands-end, and 7 leagues eaſt from Silly, lieth alſo a ſharpe rook, called the Gulfe, which commeth at halfe tyde above water, and is round about indifferent cleane.

The Gulfe

Silly is divided into divers Ilands, alongſt the Weſt ſide lyeth


WAL-SENGELANT
Carmarten
Cardiek
Bristou
Naest Sandy
Portland
Plymouth
Dartmouth
Falmouth
Sorlinges
Lezard
Scilly
Les Costes Maritimes du Canal de Bristou. A. Amstel p. Ingues Colom.
De Custe van Engelandt van Lezard tot Engelants eynde de Sorlinges en de Canaal van Bristou. Nieulycx beschreven by Jacob Aertss. Colom.
Duytsche mylen 15 voor een graedt. Lieues d'Allemaigne 15 en un degré
Spaansche mylen 17½ voor een graedt. Lieues d'Espaigne 17½ en un degré
Engel. en Fra. mylen 20 voor een graedt. Lieues Angl. et Franc. 20 en un deg.
Sorlinges

For to ſail into Silly.

lieth a great multitude of rocks, men may goe in there through divers channels or founds, but the ſouther channell is the beſt. About the middeſt of the entry of that ſound or channell, lieth a ſuncken rock, men may goe in on both ſides off it, but to the eaſtwards off it is broadeſt and beſt. For to ſaile in there comming from the eaſt, you may runne alongſt by the eaſt land in eight or nine fathom, and you ſhall ſo runne alongſt to the eaſtwards of that foreſaid ſuncken rock, which lieth againſt a ſconce a little without the caſtle. The markes to avoid this Rock, are two rocks which lie on the weſt ſide within the haven, the one (to wit the innermoſt) is ſomewhat greater then the other. If you bring them one in the other, or the northermoſt a little to the eaſtwards of the ſoutherm oſt or the ſmalleſt, ſo that you may even ſee through between them, and ſayl ſo right in, keeping them ſo, you ſhall ſo ſaile farre enough to the eaſtwards of the rock. If you come from the ſouthwards or the weſtwards, and are bound into Silly, then runne towards the eaſt-land ſo long untill you bring the two foreſaid rocks within the haven, one in the other, or even through one another, ſaile then ſo in, and then you ſhall runne (as before is ſaid) cleare of the foreſaid ſuncken rock, thwart of the ſconce. At the inner point of the Iland, at the eaſt ſide of this ſouther channell, lieth another ſuncken rock, where of men muſt take heed. For to avoid it, you muſt run ſo long to the northwards, upon the markes of the foreſaid two rocks, untill you may ſee the litle Tower in the ſandy Bay, then goe to the eaſtwards, unto the Bay, and anckor there in eight or nine fathom. When you come neare Silly upon the ſouth ſide, you ſhall ſee a ſquare Tower in the ſandy bay or valley, and to the weſtwards many little Ilands and rocks. The ground of Silly is ſomewhat ſtony with ſome red ſhels.

Of the depths and many ſorts of grounds before and in the channel betweene Silly and Vſhand, and thereabouts.

Seames

Southweſt and by ſouth from the Seaws ſeven leagues it is deep 72 fathom, the ground pale, white courſe ſand, like ſmall fretted litle ſtones, with litle peeces of queenes ſhels with gray flat litle ſtones, & white glittering needles, ſaile from thence n. & n. and by e. and then you ſhall fall well to paſſe with Uſhant.

About two leagues ſouthweſt from the Seams it is deep 72 fathom, the ground there is white, yellow rough, & ſomewhat longiſh ſand, with a litle red ſmal ſhelly ſand, with many gray crompeld things, and ſome ſmall with gliſtering points of needles. If men did finde there 70, or 80 fathom, they would judge it to be good channel ground.

Seames

Weſtſouthweſt from the Seames, ſo farre from the land, as men may but even ſee the Sheets from the poop, with cleare ſight, it is 54 fathom deep, the ground is red, yellow, white and black peeces, like parings of cheeſe, and a little courſe red ſand mingled with all.

Weſt and by ſouth 8 or 9 leagues from the Seames is 65 fathom, the ground it white yellow, with a litle red ſmall ſhelly ſand, with ſome peeces of ſhels and queens, not very great, with much white & yellow ſome thing long ſand, & ſmal white things like poynts of needles, like as men find in the channell.

Vshant

Seven leagues ſouthweſt from Uſhant, or thereabouts, that men may even ſee it from the poop, having cleare ſight in 70 fathom, there the ground is white and yellow courſe ſand with ſome peeces of queenes ſhelles, and ſome peeces of white thin ſhels, with ſome gray flat ragged ſtones.

Vshant

Southweſt and by weſt from Uſhant, about 19 or 20 leagues in 78, or 80, fathom, the grounds is white and yellow courſe ſand, with ſmall gliſtering needles, with white peeces off queens ſhels, and gray and yellow flat ſtones, and litle peeces like as it were of Oyſter ſhels.

Vshant.

Weſt and by ſouth from Vſhant 21 leagues, in 68 fathom, the ground is red, yellow, and black, mingled with a litle White round ſmall ſand, like ſhelly ſand. But in 80 fathom, 21 leagues weſt and by ſouth off from Uſhant, the ground is yellow and ſhelly, with ſome gray and crompeld litle needles like ends of ſmal rie.

Vshant

In eighty fathom 24 leagues from Uſhant weſt and by ſouth, men finde rough great ſand, with many ſorts of ſhels, red, White, yellow, and gray, with peeces of queene ſhels.

From Uſhant weſt 16 or 17 leagues, in 75 fathom, the ground is white and yellow courſe ſand, with peeces of thinne White ſhelles, & gray peeces of queenes ſhelles, like as it were of Oyſter ſhels, white ſmal white gliſtering things like needles.

Vshant.

Eight or nine leagues from Vſhant it is deepe 70 fathom, the ground red, white, yellow and gray ſhelly ſand; with red, yellow, and black peeces off ſhelles, & ſmal red, yellow, black, and gray ſtones, with ſome ſmal white thiugs like needles.

Eight and forty leagues weſt and by north from Vſhant and 70 fathom weſtſouthweſt from the Lizart or thereabouts, it is deepe 95 fathom, the ground red, yellow, and black ſand, with ſmal white round ſhelly ſand, and ſome litle peeces of ſhelles and queen ſhels, with ſome peeces of thin ſhels.

Three and thirty leagues weſt & by north from Vſhant and 27 leagues ſouthweſt and by ſouth from Silly, in 95 fathom, the ground is gray, red and yellow, mingled with ſmal blanck ſands, with darke, red, white, and yellow peeces off ſhels, to wit, gray and red ſhelly ſand. An eaſtnortheaſt courſe from this ground off, is the beſt, it is in the height of about 49 degrees.

Foure and twenty leagues weſt, or weſt and by north from Vſhant, and ſouth and by weſt from Silly 21 leagues in 80 fa- Vshant thom, there the ground is white, gray, red and yellow fine ſmal ſhelly ſand, with litle red and white peeces of litle ſhels, to ſee to like bruiſed muſtard ſeed in the height of 49 degrees.

Seven or eight leagues weſt and weſt and by north from Vſhant in 68, or 70 fathom, there the ground is white and yel- Vshant. low, ſmal ſhelly ſand, mingled with many gray crompeld litle things, like needles.

About 30 leagues ſomewhat more northerly from Vſhant, Vshant in 90 fathom, the ground is ſmal white rough, and ſomewhat long ſand, mingled with an red and yellow, and ſome gliſtering litle things like needles, with two or three peeces of white gray ſhels. If you goe on from thence northeaſt and by north, untill you come in 55 fathom, there the ground is yellowiſh, white courſe ſhelly ſand, with white peeces off ſhels, then you may ſee Silly lye nine or tenne leagues north or ſomewhat more weſterly from you.

Weſtnorthweſt from Vſhant 21 leagues, and ſoutweſt and Vshant. by ſouth from the Lizart 27 leagues, in 80 fathom, the ground Lizart. is gray and red ſhelly ſand, there commeth alſo on the lead a litle peece or two of white or gray queene ſhels, with yellow and red peeces of ſhellow, alſo peeces off perriwinckles.

Nine leagues northweſt and by north from Vſhant, the Vshant. ground is white and yellow rough ſhelly ſand, with gray crompeld gliſtering litle things like needles, there come alſo on the lead litle things like ſmal ſtraws. If you goe on northeaſt from thence, you ſhal ſal vvith the Steart.

Twenty leagues northweſt and by north from Vſhant, and 16 leagues ſouthweſt ſomewhat ſoutherly from the Lizart in 68 fathom, the ground is white yellow and red ſmal round ſand, vvith ſome white gliſtering litle things like needles, with one or two litle gray crompeld things like needles, and 2 or 3 litle peeces of little vvithe ſhels.

Nineteen leagues N.N.W. from Vſhant, & 12 or 13 leag. Vshant. S. S. W. from the Lizart, it is 68 fathom deepe, the ground is Lizart. there al manner of ragged ſtones, gray, red and black vvith red peeces of ſhels, & ſom gray crompeld litle things like needles.

Nineteene leagues north and by weſt from Vſhant, the S. Vshant. from the Lizart, it is deepe fixty two fathom, the ground is vvithe and courſe ſhelly ſand, vvith vvhite and gray crompeld litle things, like needles, vvith vvhite peeces of ſhels, and 2 or 3 litle ſtones amongſt.

Twelve or thirteene leagues vveſt from Silly, or ſomevvhat Silly. more northerly, it is deep ſixty fathom, the ground is gray & oaſie, mingled vvith ſmal black ſand. In ſome place of the ſame depth it is vvhite gray, oaſie ſmal ſand, vvith peeces off thin White ſhels amongſt, vvith a litle peece or two like parings of cheeſe: this ground cannot be gotten up vvith candle tallow, or other hard tallovv upon the lead, but vvith ſoft tallow, or butter. In theſe depths you have no vvhere ſuch oaſie ground as there, whereby men may well know that they areon the back ſide of Silly or England, to wit, weſt from Silly.

Weſt from Silly 7 leagues, it is oaſie gray ſand with 2 or 3 Silly. litle peeces like parings of cheeſe.

Seven or eight leagues ſouthſouthweſt from the Lizart, in ſixty fathom, the ground is white groſſe with a litle red ſand, with litle ſhels, & litle gliſtering white things like needles.

Nine or ten leagues ſouth and by weſt from the Lizart, in 60 fathom, the ground is yellow pieces of ſhels, and gray pieces of ſoft flat ſtones like parings of cheeſe, with ſome red pieces of ſhels, without any ſand therein.

Southweſt and by weſt from the Lizart, and S. S. W. from Lizart. Silly 19 leagues it is deep 78 fathom, the ground gray, yel- Silly. low, and red ſhelly ſand, with red, yellow, and blue pieces of ſhels with queene ſhels, and a piece or two like parings of cheeſe, or like of pieces Oyſter ſhels, with alſo two or three gliſtering litle things like needles, in the height of about 49 minutes degrees, and 30. minutes.

Fifteen or 16 leagues S.W. and by ſouth from the Steart, in Steart. 57 or 58 fathom, the ground is pieces of all maner of ſhels, and queen ſhels, with a little yellow and white ſhelly ſand, with many ſorts of little ſtones, and gray little pieces like parings

rings of cheefe, with fome crumpeld, and fome not crumpeld, bar like glittering things like needles, and little things like maggots that are in Bakon.

Steart. Southfouthweft from the Steart, 16 leagues, in 53 fathom, the ground is white reddish fhelly fand, with pieces of queene fhels, with red gray little ftones.

Southweft from the Steart 8 leagues, it is deep 40 fathom the ground gray and red fhelly fand.

Southfouthweft from the Steart, 13, or 14 leagues, it is deep 47 fathom, the ground pale muddy fand, with little long things, and little ftones.

A great kenning S. S. E. from the Steart, it is deep 40 fathom, the ground red fandy clay with pits in the tallow.

Steart Southweft eleven or thirteen leagues from the Steart, in fifty fathom, the ground is white and yellow fmall fhelley fand, with fome pieces of white fhels, with gray and crumpled, and alſo glittering litle things like needles. In fine, he that foundeth much, getteth many and divers forts of grounds and fometimes great change in little change of diſtance of place. But he that foundeth and findeth white fhels, with little things like frawes and needles, it is certaine that he is neareſt to Vſhant: but if he finde brandy ground, or blacke litle ſtones mingled with white litle things, then is he neareſt to Silley.

Markes of Vſhant & Silly. Hee that foundeth thwart of Vſhant, and findeth fmall white fand, and little fhels, and fmall litle things caſie and white. Vſhant ſhall then lye N. E. from him. If he finde long fmall litle things like needles, then ſhall Vſhant lye S.E. from him. But if he be not ſure of theſe grounds, then he ſhall beare to the northwards. And if he finde deeper water then he is towards the Seams, but if hee finde it ſhowldy, then he is in the entring of the Channell to the northwards of Vſhant. If he be between Vſhant and the Seams in 90 fathom, he ſhall finde the ground to be ſmall litle ſtones like blak fand of the earth: or elſe if he finde the ground to be great red fand, then he muſt ſtand to the northwards, untill that he finde the white fandy ground, and long ſmall things then he may hold himſelf certaine to be in the entring of the channell.

From the Lands-end of England to the C. of Cornwall, the coaſt lieth north about 5 leagues, but Silly and the foreſaid Caſie Southweſt and northeaſt diſtant about 9 leagues. By the

Ibresam Cape lieth a little Iland or Rock, caled Bresam, betwixt it and the Cape men may faile through.

From the Cape of Cornwal unto the litle Towne Saint

S. Yves Yves, lieth the coaſt about eait and by north, and E. N. E. five or ſixe leagues. Saint Yves lieth upon the weſt point of a great Bay, which is about two leagues broad. At the eaſt point of the Bay lieth a little Iland, there lieth off from it a great ledge of rocks, a great halfe league thwart off into ſea, whereof many of them come at halfe ebbe above water, & wil faile alongſt the coaſt towards Stoupert or Padſtow, muſt keepe off (thwart of the foreſaid ledge) at leaſt a great league from the ſhoare, becauſe of the foreſaid rockes. Betwixt that foreſaid litle Iland at the eaſt point of the Bay and the maine land, it is alſo at many places rocky and foule, ſo that one that is not there very well acquainted, may no to faile through there without great danger. In the Bay of S. Yves is on both ſides good fandy ground, where men may anckor all over, and come ſo neare the ſhoares as they will. At the Weſt ſide of the Bay at the Towne, is a head where ſmal ſhippes and Barkes doe goe in within it, and lie there ſuccoured for northerly windes, but great ſhips may not doe ſo, they muſt anckor without in fix or ſeven fathom.

From S. Yves to Hartland point, the courſe is northeaſt 17, or 18, leagues, betwixt them both about halfe wayes lieth

Stoupert Padſtow. the point of Stoupert, to the eaſtwards of it lieth Padſtow in a Bay, where is a very good road in 7, or 8, fathom. At the weſt ſide of that point lieth a funcken Rock under water, and upon the point a great high rock, to the weſtwards of that point towards S. Yves, are many white fandy and chalky bayes alongſt the ſhoare, thereby the coaſt there is very good to be knowne.

Hartland point. Hartland point is a point that lieth out 4 leagues north from it lieth the Iland Londey, which is fomewhat a long Iland, it lieth moſt north and by W. and S. and by E. At the eaſt ſide of that Iland men may ride for weſterly windes in 14 and 15 fathom, but on the weſt ſide the ground is foule.

Biddeford Foure leagues to the eaſtwards of Hartland point eaſtſoutheaſt from the ſouth end of Londey, lieth the ſound of Biddeford, being a broad haven, where many ſhippes doe ſaile in and out. A litle within the mouth of the haven, it dividech it ſelfe into two rivers, upon the weſternmoſt on the ſtarboard ſide lieth Biddeford, and upon the eaſtermoſt on the larboard ſide lieth a town called Barneſtable. barnſtable

From the point to the northwards of Biddefort Haven, unto Ilfercombe the courſe is E. N. E. foure leagues, that is haven where remaineth at low water 3 or 4 fathom depth. Before the haven is alſo good road, in 8 or 9 fathom at halfe flood.

Eleven or 12 leagues to the eaſtwards of Ilfercombe, lie Ilfercomb two litle Ilands, about two leagues north and ſouth one from the other, called the Holmes, the northermoſt is called the Flatholm, and the ſouthermoſt the Stepholm, betwixt Ilfer- Flatholme comb and the Holms ſomewhat nearer the Holms then Ilfer- Steepholm comb, lieth a litle towne called Mynehead, where many ſhips do lade.

In the fareway betwixt Ilfercomb and the Holmes, on the Engliſh ſide, on the one ſide, and the bankes on the Welſh ſide on the other ſide, in the middeſt of the channel it is deepe 30, 25, 20, 18, 16, and 15 fathom, the nearer the Holmes the ſhowldier water. When men come from the weſtwards within the Iland Londey, then they may ſee the Land on both ſides, to wit, of England and Wales. The Engliſh coaſt even from the C. of Cornwall to the Holmes is altogether cleane, but the coaſt of Wales is moſt all foule and ſhowldy, from the Iland Londey unto Briſtow, with many bankes, ſands, and riffes that Galdy unto Briſtow, with many bankes, ſands, and riffes that lie off. The Holmes and the Iland Londy lie weſt ſouthweſt, and eaſt northeaſt, diſtant 19 leagues.

He that will faile from Londey to Briſtow, muſt run alongſt by the Engliſh coaſt, untill that he come within the point of the Naes, for to avoid Naes-fand, and then forth alongſt through betweene the Holmes, leaving the Steep-holme on ſtarboard, and Flatholme on the larboard ſide. Men may alſo with little ſhips, of little draughts, faile about to the S. wards of the Steepholme, but it is there ſo ſhoudly, that there remaineth at low water no more then 2 fathom water. Under Road under the ſteep-holm. Steepholm men may anckor where they wil, in 4 or 5 fathom.

He that commeth off from the Naes, and is bound to Briſtow, muſt ſtand over to the Seepholme, and run alongſt to the n.wards of it. It lieth from the Naes e. f. eabout 5 leagues.

For to ſaile through betweene the Holms, the right and beſt For to ſail through between the Holms fareway, you muſt faile neareſt the ſide of the Flatholme, there it is deepeſt, with an open wind men may alongſt ſo ſhall then at the eaſt ſhore lie neere about thwart from you, upon it ſtandeth two mils, and above upon the maine land ſtandeth one mill. When the mill that ſtandeth upon the high land commeth to the weſt end of that foreſaid Iland. you ſhal bee paſt the foreſaid taile of the Engliſh grounds, and cannot faile within it, goe then eaſtnortheaſt alongſt by the Engliſh grounds, which are flat, ſo that you may faile alongſt by them upon your lead in 3 or 4 fathom ſo neere as you will. When then the mill that ſtandeth upon the high land, commeth between the foreſaid two mills which ſtand upon the litle Iland, then ſhal you be altogether paſt the Engliſh grounds, run then boldly towardes the Engliſh coaſt, and ſo cloſe alongſt by it, as you pleaſe, towardes Paſſis or Portſhut point. For to the eaſtwardes and to the northwardes off the foreſaid rockes, it is alſo a good anckoring in ſixe, ſeven, or eight fathom, it is there all cleane ground, and farre off ſhowld water. Men may alſo faile through to the weſtwardes of the Iland Caldy, (which is between the Iland and the point of the maine land) to Tinby, but it is there narrow, yet cleane, and deepe enough.

River off Carmarthen. The River of Garmarten lieth from the Iland Galdy northeaſt and by north diſtant about foure leagues, the channell for to ſaile in there, lieth in eaſtnortheaſt, on the eaſt or the ſouth ſide lieth a great Banck which lieth off farre from the ſhore, and on the off-ſide goeth off flat. For to faile in there men may found it in alongſt by the eaſt or north ſhore, untill they be over the ſhowldeſt of the barre, there is upon it at halfe flood about foureteen foot water, and being over the barre it will be againe foure fathom deepe, or thereabouts, then they may run in forth alongſt by the ſouthſhore, by the lead, untill they come within the river.

Foure or five leagues to the weſtwards of the Iland Caldy, S. Gawens point. lieth S. Gawens poynt, the ſouth point of Wales, by ſome called the white point. About halfe an Engliſh mile ſouthſouth-

The Crow weſt from the point, lieth a funcken rock, called the Crow, whereof men muſt take heede.

Cardief. About 3 leagues to the northwardes off Flatholm lyeth the Town Cardieff in Wales, being a tyde-haven, before it is a good road, as well for ſhippes that are bound to the weſtwardes as tho the eaſtwards, where men may lye landlockt almoſt for all windes, to the eaſtwardes and to the northwards off it lie many ſands and bankes, which fall drye at lowe water, and ſo that they make men landlockt for northeaſt and eaſt winds. Hee that is bound into the roade before Cardieff comming from the weſt, muſt runne in betwixt Flatholm and the point off Cardief, lying fomewhat to the ſouthwardes of Cardieff, and being come about the point, then to the northwardes up alongſt by the ſhore unto the road.

Silly. Barrey. Cloſe up to the point of Cardief, to wit, to the weſtwards of it, lye two litle Ilands, the one next to the point, is called Silye, and the weſtermoſt Barrey: betwixt Silye and Flatholme lieth a rock, foutheaſt and ſoutheaſt and by eaſt from the point, which muſt bee avoyded when you will faile through there unto the roade of Cardief. When it is high water you may faile over all that which at halfe ebbe cometh not above water.

The Naes. About five leagues weſt from the point of Cardief lieth the Naes, to the weſtwardes of it the land falleth away firſt about northweſt, then afterwards ſouthweſt, or ſouthweſt and by weſt, and ſo maketh a great bay betwixt the Naes and Wormeſhead, where there are very good roads for weſt, north, northeaſt, and eaſt winds.

Naeſſland. From the Naes a litle from the ſhore lieth a great bancke, called Naeſſland, which lieth of from thence weſt and by ſouth, and weſtſouthweſt at leaſt five leagues into ſea. From Wormſhead likewiſe lyeth of a banck which is very fleet, called Helwix, about foure leagues ſouthſouthweſt, and ſouthweſt and by ſouth into ſea, they that come from the eaſtwards, and will goe to ryde in the Bay betwixt the Naes and Wormeſhead, runne alongſt cloſe by the point of the Naes, through betwixt the Naes and Naeſſland, likewiſe they that come from the weſtwardes, and are bound in there, may runthrough cloſe alongſt by the point of Wormeſhead and the Helwix, it is betwixt them both about an Engliſh mile broad. He that cometh out of the ſea, may come in betweene the foreſaid fandes or banckes, it is there wide and broad.

Wormeſhead. Wormſhead is a point lying farre out, to look to a farre off allmoſt like the Oldhead in Ireland, but it is above or under, & goeth floping downe towardes the north, it hath many white chalky ſpots, whereby it is very good to bee known.

Caldy. About foure leagues to the weſtwardes of Wormeſhead lieth the litle Iland Caldy, where upon ſtandeth a white Tower, ſhewing off at ſea like a white ſaile, which is ſet there for to know the land by.

Betwixt this Iland and the point off Wormſhead, the land falleth a way with a great bay to the northwardes, unto Carmarthen and Tinbuy, in this Bay it is all over good anckor ground for to ride. On every ſide of the Iland Caldy men may alſo anckor, and have ſhelter for all windes. A litle to the northwardes of Caldy lieth a rane of funcken rockes, called Wullox. the Wullox. Hee that will faile about to the eaſtwardes off the Iland, to the Tinbuy, may runne cloſe about by it, up to the weſtwards, through betwixt the Iland and the funcken rockes, leaving them on the ſtarboard ſide, or elſe he may runne alongſt alſo to the eſtwardes and to the northwards of the funcken rockes leaving them on the larboard ſide, and ſo then alſo to Tinbuy, and anckor there before the Towne in five or ſixe fathom. To the eaſtwardes and to the northwardes off the foreſaid rockes, it is alſo a good anckoring in ſixe, ſeven, or eight fathom, it is there all cleane ground, and farre off ſhowld water. Men may alſo faile through to the weſtwardes of the Iland Caldy, (which is between the Iland and the point of the maine land) to Tinby, but it is there narrow, yet cleane, and deepe enough.

River off Carmarthen. The River of Garmarten lieth from the Iland Galdy northeaſt and by north diſtant about foure leagues, the channell for to ſaile in there, lieth in eaſtnortheaſt, on the eaſt or the ſouth ſide lieth a great Banck which lieth off farre from the ſhore, and on the off-ſide goeth off flat. For to faile in there men may found it in alongſt by the eaſt or north ſhore, untill they be over the ſhowldeſt of the barre, there is upon it at halfe flood about foureteen foot water, and being over the barre it will be againe foure fathom deepe, or thereabouts, then they may run in forth alongſt by the ſouthſhore, by the lead, untill they come within the river.

S. Gawens point. Foure or five leagues to the weſtwards of the Iland Caldy, lieth S. Gawens poynt, the ſouth point of Wales, by ſome called the white point. About halfe an Engliſh mile ſouthſouth-

The Crow weſt from the point, lieth a funcken rock, called the Crow, whereof men muſt take heede.

Two leagues to the weſtwards of S. Gawens point lieth the haven of Milford, a broad and wide ſound, lying in at the entry N. E. in, being come in within the points, men may goe up to the northwards, eaſtwards, and ſouthwards, unto divers places and roades. About by the north point men may fayle unto Daleroade, there it is good lying in three fathom and three fathom and a halfe at low water. When men come a litle within the ſouth point in the open of Milford haven, there lieth a litle Iland or rock like the Mewſtone by Plymmouth, being paſt that, a litle they may run to the ſouthwards, into a bay, where they may lye landlockt for all windes. h Milford-haven.

A litle to the weſtwards of Milford-haven lye two litle Ilands, the ſouthermoſt is the ſmalleſt, called Stockholm, and the northermoſt Scaline. About 2 leagues N. N. W. or N. W. and by north from thence, lyeth the Iland Ramſey, there betwixt them hath the land a great Bay, called the Broad-bay. Ramſey lieth at the north point, and Scaline, at the ſouth point off the Bay, there in alongſt the ſhore is good riding for north, northeaſt, eaſt and ſoutheaſt winds, in 7, 8, and 9 fathom. Upon the North point of this Bay lieth a litle Towne, called S. Davids, to the northwards of lieth the Coaſt off Wales alongſt northeaſt unto Cardygan. Streckholm. Scaline. Ramſey. broad. S. Davids

About two leagues weſt and by ſouth to ſeawards from the Iland Scaline, and 3 leagues ſouthwards from Ramſey, lyeth that litle Iland Graſholm, which is a round cleane rock, and about 4 leagues of from it lye alſo two litle Ilands, which are fowle, called the Smalles. The lying of them, with the dangers thereof, you may reade in the deſcription off Ireland. Graſholm Smals.

On the northweſt ſide of the Iland Ramſey lyeth the Biſhoppe with his Clarks, theſe are rockes that lie off to the N. and weſts and ſouthweſtwards of that Iland a good way to ſea. About 5 leagues north W. or fomewhat northerly from Ramſey lieth another great rock, called Maſcus, which is all round about foul, with many funcken rocks. He that cometh to faile thereabouts, or to lye by, muſt take very good heed of them. Biſhop' with his Glarkes. Maſcus

The Iland Ramſey, or the northpoint of Wales, and the ſoutheaſt point of Ireland, lie about eaſtſoutheaſt and weſtnortheweſt diſtant 16 leagues.

Of the tydes and courſes of the Streams.

In Mounts-Bay and at the Lands-end of England, a weſtſouthweſt and eaſtnortheaſt moon maketh high water.

In Silly a ſouthweſt and by weſt moone maketh ſul ſea.

A ſeaboard of Silly in the channel likewiſe a ſouthweſt and by weſt moone.

In the entring of the channell a ſouthweſt and ſoutheaſt moone.

From Silly to the Lizart the flood falleth northeaſt. and the ebbe ſoutheweſt.

Betwixt Silly and Londay the flood falleth northeaſt, and the ebbe S.W.

In Silly a ſouthweſt and by weſt moone maketh high watery.

On the coaſt of England betwixt the Cape of Cornwal and Hartland point a weſtſouthweſt, and weſt and by ſouth moone maketh high water.

Thwart of the Iland Londey a weſt and by ſouth, but on the Iland an eaſt and weſt moone.

At the Iland Londey, and at the Holmes, an eaſt and weſt moone maketh high water.

At Briſtow within, a weſt and by north moone maketh ſul ſea.

At Milford haven an eaſt and by north, and weſt and by ſouth moone maketh high water.

In the channel of Briſtow betwixt Londey and the Holmes, the flood falleth eaſtnortheaſt, and the ebbe weſtſoutheaſt.

within the Holms towards Briſtow, the flood falleth northeaſt and by eaſt, and the ebbe ſouthweſt and by weſt.

Betwixt londay and Milford, the ſtreame falleth northeaſt, and northeaſt and by eaſt.

Of the depths.

Silly men may ſee on the ſo uthſide in 52 fathom, and the ground there is ſtony with ſome red ſhels.

The lands end of England, men may ſee alſo in 52 fathom.

Silly may be ſeene on the north ſide in 45, 46, and 48 fathom, there the ground is ooſie, with ſome little ſtones amongſt it.

When men are to the northwards of Silly, it ſheweth firſt in two Ilands, upon the eaſtermoſt they ſhall ſee a tower, or litle caſtle to the eaſtwards of the two Ilands, they ſhall ſee alſo great two hilly rockes, and to the weſtwards three high black rockes.

Weſtnortheweſt and weſt and by north ten or eleven leagues from Silly, the ground is oaſie and ſoft that men can ſcarce get any of it upon the lead, there come ſome little ſhels amongſt it.

Betwixt the lands end of England and Londey in the fareway, it is 45 fathom deepe, the land of Cornwall, men may ſee in 44 fathom.

Three or foure leagues without the land, thwart of Saint Yves, Stoupert, or Padſtow, the ground is sharpe and rocky, but neerer the land it is all fandy ground.

Betwixt S. Yves and Hartlands poynt are many white chalky hills alongſt the coaſt, eſpecially neere by Stoupert or Padſtow, whereby this coaſt it is to be knowne.

In the channell betwixt the Holmes and Briſtow, it is deep 12, 13, and 14 fathom, men may ſee the land on both ſides.

Upon the coaſt of Wales about Milford, and to the northwards of it, men may ſee the land in 42, and 45 fathom.

Courſes and Diſtances.

From the lizart to the lands end weſtnortheweſt,	——	9 or 10 leagues
From the lands end to Silly w. ſ. w.	——	8 leagues
From the lizart to the Guiſe, the courſe is w. and by N.	——	10 leagues
From the lands-end to the Guiſe the courſe is S.S.W.	——	3 leagues
From the Guiſe to Silly weſt	——	5 leagues
From Silly to the Caskets eaſt ſomwhat ſoutherly,	——	65 leagues

From Silly to Vshant, the coast is southeast and by south — 27 leagues
From Silly to cape de Finisterre, south and by west westerly — 150 leagues
From Silly to cape Cleare in Ireland northwest and by north — 40 leagues
From Silly to Waterford north, somewhat westerly — 40 leagues
From Silly to the cape of Cornwall northeast — 9 leagues
From the cape of Cornwal to S. Yves east and by north, — 7 leagues
From the cape of Cornwall to S. Yves east and by east — 9 leagues
From S. Yves to Stoupert point, northeast and by east — 9 leagues
From Stoupert to Hartland point northeast and by north — 18 leagues
From saint Yves to Hartland point northeast — 4 leagues
From Hartland point to the Iland Londey north — 4 leagues
From the cape of Cornwall to Londay northeast and northeast and by north 27 leagues
From the cape of Cornwall or Milford in Wales northnortheast 32 or 33 leag.
From Silly to Milford northnortheast, somewhat easterly — 40 leagues
From the cape of Cornwal to Waterford N.N.W. but from Silly north and by west, somewhat northerly — 40 leagues
From Silly to cape Cleare in Ireland northwest and by north — 40 leagues
From the west end of Londey, to Biddeford eastsoutheast — 5 leagues
From Biddeford to Ilfercomb eastnortheast — 4 leagues

From Londey to the Holmes eastnortheast — 20 leagues
From the steepholme to the river of Bristow northeast and by east — 21 leagues
From the steepholme to the Nass westnorthwest about — 7 leagues
From the Nass to saint Gawens point west, somewhat northerly — 17 leagues
From S. Gawens point to Mildford haven northwest and by north — 4 leagues
From the Iland Scalie to Ramsey northnorthwest — 3 leagues
From Londay to Milford north and by west and northnorthwest 12 or 13 leagues
From Milford to the cape of Cornewall southsouthwest — 32 leagues
From Milford to Silly southsouthwest, and southwest and by south — 40 leagues

Heights.

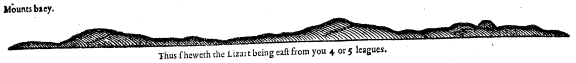
The south side of Silly lyeth in — 50 degrees, or a little more
The cape of Cornwal lyeth in — 50 degrees 25 minuten
Londay lyeth in — 51 degrees 20 minuten
The Holmes lye in — 51 degrees 40 minuten
Milford in — 51 degrees 50 minuten
The Iland Ramsey in — 52 degrees

How these Lands doe shew themselves at Sea.

Thus sheweth the Lizart when it is 5 or 6 leagues east and by north from you.

The Lizart.

Mounts bay.



Thus sheweth the Lizart being east from you 4 or 5 leagues.

Thus sheweth the land betwixt the Lizart and the lands-end when the lizart lyeth about east and by north, and Mounts-bay north from you.

Mounts-bay n. e. by n. and n. n. e.

Lands end northnorthwest

Thus sheweth the lands end, and the land to the eastwards of it when it is northnorthwest, and mounts bay is northeast and by north, and northnortheast from you, being 4 league from the land.

The lands end sheweth it selfe thus, when you come in right within out of the sea.

The lands end being east from you sheweth thus.

The lands end of England.

East

Thus sheweth the lands end when it lyeth southeast and by south seven or eight leagues from you, and the round Hill to the northwards of it east, then you may even see the low land betwixt them both.

Thus sheweth the Silly, being eastnortheast from you.

When Silly is southeast from you, it sheweth thus.

When Silly is east 5 or 6 leagues from you, it sheweth thus.

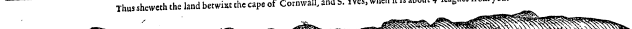
When Silly is southeast and by east from you, it sheweth thus

Silly, being southwest from you sheweth thus.

Thus sheweth the land betwixt the Lands end of England, and the cape of Cornwall, or the Iland Breaton, when you are on the black side of the lands end.

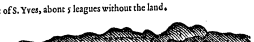
Thus sheweth the cape of Cornwall, when it is east and by south from you, so farre that you may but even see it from the poop.

Thus sheweth the land betwixt the cape of Cornwall, and S. Yves, when it is about 4 leagues from you.



Thus sheweth the land, when you are before or thwart of S. Yves, about 5 leagues without the land.

To the westwards of Stoupert sheweth the land thus, when you sayle alongst by it 2 or 3 leagues without the land.



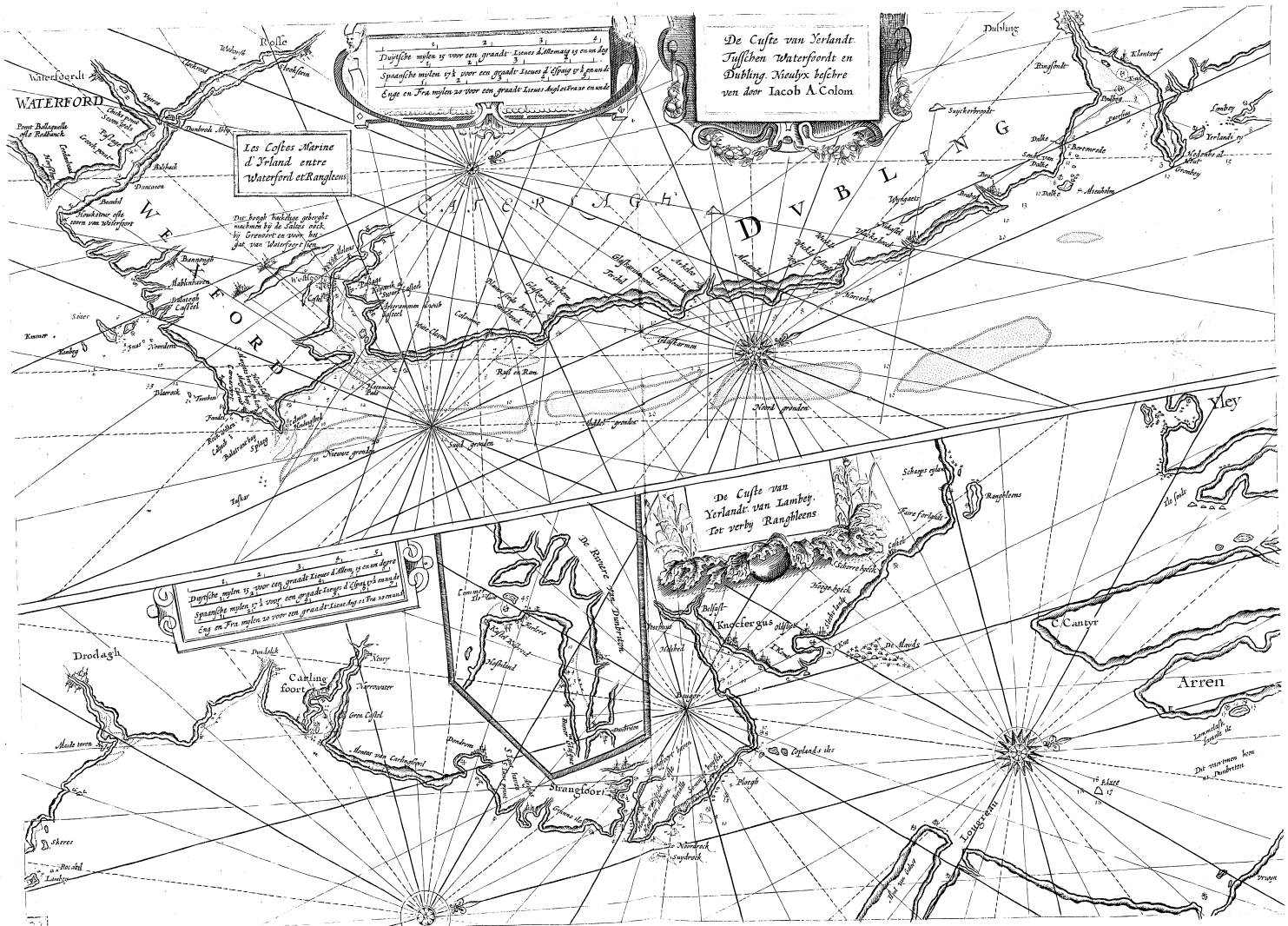
The land to the eastwards of Padstow or Stoupert sheweth thus, when it is 2 leagues east and south from you.

The land of Stoupert or Padstow sheweth thus, when you sayle alongst by it, 3 or 4 leagues without the land.

When the Iland Ionday is north from you, it sheweth thus.

When the Iland Ionday is n. n. w. from you it sheweth in this forme.

Thus

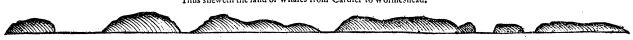

De Custe van Yerlandt. Tusschen Waterfoordt en Dubling. Nieulyx beschre ven door Iacob A. Colom.
Les Costes Marine d'Irland entre Waterford et Rangleons
De Custe van Yerlandt van Lambey. Tot verby Rangleons
WATERFORD
WEXFORD
DVBLING
CHERGAGH
Rosse
Dublyng
Waterfordt
Drodagh
Carling foort
Strangfoort
Arren
Yley
C. Cantyr
Knockergus
Rangleons
Lambey
Yerlandt
Dunbrack
Dunbrittin
Longford
Zeplands iles
Skeres
Mosle tween
De Banco
Nieuw grondt
Noord grondt
Suid grondt
Ruff en Ron
Hoogh Hammen
Elfsteenbanck
Clogherhead
Howth
Dalkey
Dublin
Drogheda
Meathe
Wexford
Waterford
Ross
Duncannon
Passage
Ballyhack
Dunbrack
Tintern
Fethard
Tacumshin
Kinsale
Cork
Youghall
Dungarvan
Tramore
Waterford Haven
Passage Haven
Bay of Dublin
Bay of Wexford
Bay of Waterford
Kinsale Haven
Cork Haven
Youghall Haven
Dungarvan Haven
Tramore Bay
Dunbrack Bay
Dublin Bay
Howth Bay
Dalkey Bay
Drogheda Bay
Meathe Bay
Wexford Bay
Ross Bay
Duncannon Bay
Passage Bay
Ballyhack Bay
Dunbrack Bay
Tintern Bay
Fethard Bay
Tacumshin Bay
Kinsale Bay
Cork Bay
Youghall Bay
Dungarvan Bay
Tramore Bay
Waterford Haven
Passage Haven
Bay of Dublin
Bay of Wexford
Bay of Waterford
Kinsale Haven
Cork Haven
Youghall Haven
Dungarvan Haven
Tramore Bay
Dunbrack Bay
Dublin Bay
Howth Bay
Dalkey Bay
Drogheda Bay
Meathe Bay
Wexford Bay
Ross Bay
Duncannon Bay
Passage Bay
Ballyhack Bay
Dunbrack Bay
Tintern Bay
Fethard Bay
Tacumshin Bay
Kinsale Bay
Cork Bay
Youghall Bay
Dungarvan Bay
Tramore Bay

The entrance of Ilfercoomb.

White-house.
Thus sheweth Ilfercoomb, when you are right before the entry of it, close by the land.

Abridge. Ilfarecoomb.
Thus sheweth the coast of England betwixt Ilfercoomb and the Holmes, when you sayle alongst by it.

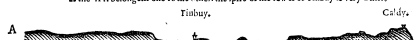
The Nace. Cardief. Sulye.
Thus sheweth the land of Whales from Cardief to Wormeshead.



Thus sheweth the coast off wales betwixt the land Caldy and Milford haven, when the northermoſt is northnortheast, and the southermoſt is eastsoutheast from you, and that you may but even see it from the poope.

The land betwixt Tinbuy and Milford sheweth it selfe thus, when you sayle alongst by the land, as is portrayed in the 2 figures, as the A A belongeth one to the other: the spire of the tower of Tinbuy is very white.

Tinbuy. Caldy.



S. Davids-bay.
The land from Milford point unto the point of S. Davids-head, sheweth, as is portrayed in these 2 figures.

From Milford to Tinbuy, men saile alongst by the coast, about 4 or 5 Points, it is most plaine land, like land-hils. About two leagues to the westwards of the point of Tinbuy, standeth a spiire tower, with 2 other small flat little towers more, whereby the coast thereabouts is good to be knowne.

The fourth demonſtration,

Wherein the ſouthweſt and eaſt coaſt off Ireland is deſcribed betweene Waterford and Band-haven or Rangleens together with the coaſtes of Sclotland lying over againſt it.

FRom the Lardes end of England to Waterford, the course is northnorthwest with that course you shall fall right with Waterford. But from Silly to Waterford, the course is north and by west, somewhat northerly forty leagues: betwixt both it is all oatie and soft ground. Nine or ten leagues in the offing from Ireland lieth a sand banck of forty fathom deepe, where commonly Fishermen lye to fish, that is certaine marck of the distance off the land, when you finde it, in cleare weather, and when there is good sight, then you may see the high mountaine off Dongarvan.

Betwixt Jochull and Dongarvan within in the land, lyeth that said high mountaine farre above all the other Land, shewing it selfe with three toppes, being called Cape de Quin, or Kary Quin. Sayling alongst the south coast of Ireland, you may see it farre of at sea, and lieth northwest from the haven off Waterford, therefore comming out of the sea and that mountain being northwest from you, and sayling right with it, you shal without fail sal right with Waterford.

The haven of Waterford lyeth about five leagues to the westwardes off the southeast point off Ireland, being called Carnaroort, the coast betwixt both lyeth eastnortheast and westsouthwest and sheweth it selfe in the offing, within the land, with high hilles two and three double one above the other, but by the sea side it is all lowe land, where you may see many flat Towers upon it, as you sayle alongst by it. The east point off the haven is a low rock point, but it is cleane, upon it standeth a high white flat Tower, called the Tower off Waterford, which you may see farre off at sea, and is a perfect mark too know this haven by, there stand divers more flatte Towers to the westwards alongst the coast, but this is better to be seen then all the rest, because it is white and higher then the other. The west point is a high and fowle poynt, there lyeth a showld southsoutheast off into sea, from it the channel is broad and cleane, without it, is eleven and ten fathom deep, and in the Havens mouth seven fathom, and somewhat further in five fathom, it lyeth in north and north and by west, within this River within the east point is a good roade in foure or five fathom, a league within the rivers mouth there lyeth on the west side a steepe point, from thence beginneth a showld lying to the northwardes alongst the shore unto the steep poynt off Passage, and shooteth over from that poynt with a sayle, towardes the east shore. Passage is a village where men pait over, lying on the west side of the River, a little to the northwardes of the forefayd steepe point.

Betwixt that village, and that point on the west side a good roade very fit as wel for them that are bound out, as for them that are bound up. In sayling up you must take heede off a little shoald, that lyeth off by a castle (standing on the east side of the River) somwhat thwart over, the river downwardes, at high water there is no more then two foote water upon it, a man that looketh for it, may see it, it is also flat that a man may found it. About halfe a league northwards up the River from Passage, there goeth another River westwards up to Waterford.

About halfe wayes betwixt the haven of Waterford and the point Carnaroort, lye 2 litle Ilands about half a league from the shore, called Saltees, the southermoſt is the greateſt and lieth distant from the Tower off Waterford, directly east almost three leagues. Betwixt these two Ilandes, you may sayle through in five, sixe and seven fathom, but you must keep neereſt the smalleſt or northermoſt Iland, for to avoyd some suncken rockes that lye at the north end off the great Iland, and at low water are drye.

From the northermoſt or smalleſt Iland off the Saltees towardes the maine land, lyeth off a ledge off rockes where men were wont to goe over on foote, but now may saile over. For to saile betwixt the Saltees and the main land, you must leave two thirds of the distance of water from the Ilands, and one third part from the maine, and you shall have at low water about two fathom deepe.

About a half league without the southermoſt Iland of the Saltees, lieth a rock above water, called Kinbegh, and south-west about so farre from it, and south and by west from the south end of the Saltees lyeth a suncken rock, called Kinmor, of the bigneſſe of a ship, it cometh with halfe ebbe even above

water, it is so steepe that a man may lie with a shipps side againſt it, and have 14 fathom water, ſo that a man (without any danger) may faile alongſt by it, as neere as he will. A man may alſo (if need require) ſaile through betwixt Kinbegh and the greateſt Iland of the Saltees, but a ſeaboard of all is beſt and ſecureſt.

The Frails. To the eaſtwards off the rock Kinbegh, ſoutheaſt from the greateſt Iland of the Saltees, lye alſo ſome funcken rockes, called the Frailes, which may be ſeen at low water, there men may alſo faile through within them. Northeaſt from the Saltees lie alſo two rockes, the ſouthermoſt is called the Tuns, and the northermoſt the north rocke.

Tuns and northrock

Northnortheaſt from the greateſt Iland of the Saltees, or from Kinbegh, and ſouthweſt and by ſouth from Camaroot, lieth one rock above water, called Blackrock, that is cleane and cleare round about, ſo that a man may faile round about it freely, without feare of danger. But a quarter of a league eaſtwards from it, lieth a funcken rocke, called the Barrel, of that a man muſt take heed.

Blackrock

Barrell.

Road under the Saltees.

Under the Ilands of both the Saltees, a man may ride, under the greateſt at the northweſt ſide neereſt the north end: the marke or knowledge of the road is, a black rock like a boat turned upſide downe, right againſt that you muſt anckor in ſeven, eight or nine fathom, there it is good ſand-ground, and landlocke for an eaſtſoutheaſt, ſoutheaſt and a ſouth winde, a ſouthweſt winde bloweth alongſt the ſhore. If you anckor neerer the ſhore in 5 fathom or thereabout, there it is rough ground.

Under the ſmalleſt Iland a man may ride at the eaſt ſide in 7 or 8 fathom, ſo that the north point of the Iland lye northnortheaſt from you, there you ſhall lye neere the landlocke for ſoutheaſt and northweſt windes.

From the point of Waterford the ſhore lieth to the eaſtwardes, within the Saltees, eaſtnortheaſt, until Carnaroort, with many bayes, and all oaſie and black ſandy. A man being acquainted there; ſhould for neeſt, at many places finde good roads, there is nothing that can hurt you except a litle fowle place a litle to the weſtward of Carnaroort cloſe by the ſhore.

For to avoyd the fowle grounds of the Saltees.

He that commeth out of Waterford, and will goe about to the ſouthwards of the Saltees, muſt not go more eaſterly then eaſtſoutheaſt, for to go cleare of the fowle grounds, which lie to the ſouthwards of the Saltees, and when the Saltees ſhal be north of him, then lieth the courſe from thence to the Tuskar, directly northeaſt, ora litle more eaſterly. But for to go alongſt without the Tuskar, a man muſt goe at leaſt northeaſt and by eaſt to goe cleare of him.

Tuskar. The Tuskar is a great black ſmooth rock, lying like unto a ſhip turned up-ſide down, but is about twice ſo great, at the north ſide of it lie alſo two ſmal rockes under water. The Tuskar lieth from the point of Grenoore S.E. and by E. and E.S.E diſtant one league: from the Saltees N. N. E. foure leagues and a halfe, from Black-rock alſo E. N. E. two leagues & a halfe, & from the Landes end of England N. and by weſt.

Smaels. Southeaſt and by ſouth about ten leagues from the Tuskar, lie two litle Ilands cloſe one by another, about foure leagues from Graſholme, called the Smaels, at high water and ſpring tydes the water floweth over them, the northermoſt is called Scakum, and the ſouthermoſt is called Kamay, there lie off in the ſea 2 litle ſhowlds from them, the one north N.W. and the other S. S. E. Betwixt the Smaels and Graſholme lieth alſo a ledge of rockes, which at low water may bee ſeene above water. It is not without great danger to goe through betwixt them both, eſpecially with calmes, by reaſon of the tyde that runneth very ſtrong there through; and eaſtſoutheaſt moone maketh high water without the Smaels.

From the Tuskar eaſt and by ſouth about eight leagues, lieth alſo a great rock, with many ſmal rockes round about it, called Maſcus. Heethat commeth from England and wil faile towards Ireland, muſt, take great heed thereof, eſpecialy when as through wefterly or northerly windes he ſhal be driven a litle to the eaſtwards of the courſe.

Maſcus rock.

Road under Carnaroort. For to anckor under the point of Carnaroort, comming from the weſt, you muſt take heed to come no neerer the ſhore then in foxe fathom, untill that you ſhall be paſſed by the high hill that lieth to the weſtwardes of the point, when you ſhall have brought out the mill to the eaſtwards the length of a capſtone barre, then you may anckor in 9 fathom, there is very good riding,

From Carnaroort S. Margets, bay, the ſhore lieth along northeaſt one league, it is betwixt both rocky and ſowle, but the ſowle ground lieth not farre off at ſea. For to keep cleare without it, you muſt keepe ſo far off the ſhore that you may ſee the toopers of the double land within about the cliffe land, and you need not feare, but if you come ſo neere the ſhore that the double land within, be covered of the foremoſt cliffe land, or that thereby it get out of your ſight, you ſhall then ſurely ſayle upon the forefaid rockes.

By S. Margets Bay upon the forefaid land ſtandeth a Gentlemans houſe in the hills, when you have brought that with the mill that ſtandeth within, one in the other, then you may goe into the roade, and leave the rockes which lye above water halfe wayes over the bay, either on ſtarboard or larboard of you, anckor there in five or fixe fathom, ſandy ground.

Galiach. About fouthſoutheaſt from S. Margets Bay off at ſea, lieth a funcken rocke, that at low water lieth dry, called Caliach, for to avoid it, take heed unto theſe markes: when you come from Carnaroort, and have Black rock with the great Iland of Saltees one in the other, and keep them ſo, and then ſaile on northeaſt, you ſhall goe right upon this funken rock. For to goe to the ſouthwards of it, then keepe Black rock with the ſmalleſt Iland of the Saltees one in the other, or els for to goe to the northwards of it, keep Black rock without or to the eaſtwards of the great Iland, and then you ſhall not need to feare any danger of this funcken rocke.

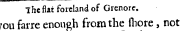
Marks for Galiach.

From S. Margets bay to the point of Grenore, lyeth the coaſt northeaſt halfe a league.

Riffe off Grenore. The point of Grenore is not very high, but ſteep and flat on the toppe, off from it goeth a ſhowld about a quarter of a league into ſea eaſt and by ſouth, of very rocks and ſtones, the which at low water falleth dry a good wayes of the ſhore. The ſhips comming from the ſouthwards that are bound for Dublin or Waſhford, goe in commonly betwixt the Tuskar and the forefaid rockes of Grenore, for to com within the banks or ſands. Oftentimes they goe into Waterford for to hire a Pilot to bring then them up. For him that will be his owne Pilot, wee will deſcribe all the markes that are to be taken heed of, as well for to ſaile into Grenore, as alſo into the deep or haven of Waſhford, as they are now at this tyme, and hereby doe adviſe men that they doe not always continue ſo, bereby doe adviſe men that they doe not always continue ſo, because by reaſon of the floods, the channell doth ſhift, and ſtreth it ſelfe out more northerly, and alſo waxeth deeper.

Comming out off the ſea about a league or two neere unto Grenore, you ſhall fee the high ragged double land high above the point of Grenore, which (as is aforeſaid) is not very high, but flat on the top. By that faid high ragged double land within, men do know the entrance of the channell of waſhford, when men doe come from the ſouthwardes and eaſtwardes. When you have ſight of the point off Grenore, you may boldly goe right with it, untill that faid double land, doe ſhew it ſelfe, by eſtimation, but a mans length above the point of Grenore, as ſheweth this figure.

The high land over the poynt of Grenore.



The flat foreland of Grenore.

Then are you farre enough from the ſhore, not to bee in any danger off the ſhould off Grenore: Or els you may fit your ſelfe that you come no neere the ſhore then in ſixe or ſeven fathom: but yet for need a man may borrow off the ſhowld in five fathom, or foure fathom and a halfe, but you muſt alſo take heed that you goe not ſo farre off from it, that you have more then eight or nine fathom depth, otherwiſe you ſhould come to neere the banck that lieth to the northwardes of the Tuskar, which on the inner ſide is very deepe and needle to upon it is no more then twelve foot water, and cloſe by it ten fathom deepe. If that you keepe the forefaid ragged high land as is before ſaid a mans length above the land of Grenore, and ſo faile to the northwardes, ſo long untill you bring that ſame high land without or to the northwardes of the ſteepe point of Grenore, then are you yet right againſt in the ſhowld, and muſt yet faile to the northwardes, keeping the mill that ſtandeth next unto the point of Grenore, ſo that you may ſee the top of it even right over the ſteepe point off Grenore. When you keepe it ſo, you ſhall not be in any danger of the ſhowld or riffe. Then as ſoone as you ſee a caſtle (which ſtandeth a litle without the ſtrand) come without the point of Grenore, then may you boldly faile towardes it, by your lead, into the Bay of Grenore.

Greenbay

The ſaid mill ſtands upon the land off Grenore, a litle within, the land, that can ſerve for a mark for not to come to neere as well to the ſhore as alſo to the ſhowld or riffe, for if you come not ſo neere the ſhore that you ſeeſe the mill out of your ſight, but keep ſo farr off, that you keep ſight of it, then doe you keepe farre enough from the ſhore, and from that rocky ſhowld or riffe. Then when the mill ſhall come to be ſouthweſt and ſouthweſt and by ſouth from you, then you are

are even paſſed the ſhowld or riffe, go then northweſt and by weſt, and northweſt, according as the winde and tide ſhall be into the Bay of Grenore.

Or els you may obſerve another marke: Sayle on ſo long north, untill that you ſee a long black houſe come out to the weſtwardes off Grenore, upon the low land, the which ſheweth like a black rock upon the land: then you may looſſe on towardes the ſhore in foure or five fathom alongſt by the riffe, and run in ſo until that you get fix or ſeven fathom, and preſently afterwardes ſhal be eight or nine fathom deepe, but then afterwardes it ſhowlds by litle and litle, as you come neere the ſhore.

If you have a large winde: then ſayle ſo long to the northwards untill you ſee another litle black houſe come out without the point, fail then unto it, you ſhall (ſo doing) have no danger of the riffe.

In the Baye it is ſhould water, you may lie there ſo neere the ſhore as you pleaſe, in fix, five, foure, and alſo three fathom, and there you can get a Pilot to bring you to Waſhford.

For to faile out off the Bay off Grenore

For to faile out off Greenbay

For to faile out of the Bay of Grenore you may run out ſo cloſe by the ſhore, that you may ſee but the wings off the mill over the Foreland, and ſo goe on eaſtſoutheaſt in to ſea alongſt by the riffe, or according as the winde and tyde ſhall bee, ſo long until that you may ſee the roofe of the mil, then you may goe larger, and by litle and litle goe more ſoutherly, and then you ſhal ſee it ripple upon the riffe.

For to fail to waſford.

For to faile out of the Bay of Grenore towards Waſhford with a ſhip that draweth litle water, you may boldly runne alongſt by the ſhore, and faile through betwixt the Haenmans path and the Souder, that is a channell where at high water and ordinary tydes is eight foote water, but with a ſpring-tyde there is ten foot water.

The Haenmans path is a dry ſand, which maketh the ſouth ſide of the channell of Waſhford, lying off from the Soudre.

The Soudre that is the ſouth poynt of the maine land of Waſhford haven.

Should of waſford. But if your ſhip goe deeper, then you muſt (failing out of Greenbay) goe further off from the ſhore, for to come without the land that ſhooteth off from Haenmans paths, yet you muſt alſo take heed not goe to farre there off, for if you come ſo far off from them, you ſhall come to neere unto the banck that lieth without, which is on the inner ſide very ſteep and needle to, therefore go no further of the ſhore then in ſeven, eight or nine fathom, but comming ſomewhat more northerly about Haenmans paths, then you may wel goe off into tenne and eleven fathom; alſo you may not come neerer Haenmans paths then in ſeven fathom.

If you deſire to be upon the barre off Waſhford and to leave the ſhowld of Haenmans paths, to with, to goe to the northwards, then take heed unto theſe markes: At the north ſide of the channel off Washford lieth a high hil with a round hommock, which is to bee ſeen over the ſtrand againſt the caſtle in the low land, a litle above the ſtrand againſt the land to looke on, bring that round hommock a litle to the northwardes off the caſtle, and faile ſo in, but bring not the hommock within or to the ſouthwards off the Caſtle, for then you ſhould bee in danger of the ſand of Haenmans paths, unleſſe it where by neede, and with a bare wind, then you might borrow ſo neere to bring them one in another, and ſo to faile in, but it is beſt to keep them ſomewhat out one off another, to with, the litle Caſtle to the ſouthwardes of the hommock.

If it ſhould happen that you could not ſee theſe forefaid markes wel, nor diſcerne them, then you may goe about the ſand of Haenmans paths by your lead in ſeven fathom without any danger.

For to know then when you are far enough failed to the weſtwardes, or are paſt Haenmans path, and are open before the channel, you ſhal ſee in the ſouth-land a litle Caſtle that ſtandeth about ſoure leagues in the land within the ſtrand, in the ſide of the high land of Waſhford, about ſouthweſt and by weſt from you, when that ſhall bee upon that point from you, and that it ſtandeth betwixt the two northermoſt litle ſand-hills, that are upon the foote ſtrand off the Soudre (which is upon the ſouth ſhore) then are you paſt Haenmans paths, faile in then upon the marks of that litle Caſtle, and the litle ſand-hils over the barre of the haven; there it is at high water about ſixteen foot deepe.

As ſone as you are paſt the outermoſt flat at the point off Haenmans paths, you ſhal goe ſomewhat neerer to Haenmans paths, although it bee very ſteep, that the tyde doth no bring you upon the taile off the north-grounds, where the maſt ſtandeth, that is a fore-maſt off a ſhippe that is there loſt, and lieth there ſuncken into the ſand, by the fore maſt the north grounds are very ſteep and needle to, but without and within very flat going up.

In this channel and upon the Barre an eaſt and weſt moone maketh higheſt water: but the flood runneth yet afterward a half tyde ſtrong by the channell to the northwards, ſo that when it is higheſt water in the channel and upon the Barre, yet runneth the tyde thwart over the channel, therefore a man muſt keepe him ſo neere to Haenmans paths, as is ſaid, that is the cauſe that the tayle of Haenmans path is caſt up ſtill more and more to the northwardes, and that the channel now lieth out more to the northwards then it was wont to doe: And yet hereafter it is like that it wil ſtretch it ſelfe more to the northwards, ſo that the forefaid markes (by the likelyhood) wil not continue certaine alwayes. Even as the flood after the higheſt water, runneth yet a half tyde or 3 houres ſtrong (in the channel) to the northwards, ſo alſo runneth the ebbe a half tyde to the ſouthwards after the loweſt water, but not ſo ſtrong as the flood.

Being over the ſhoulderſt of the Barre, you ſhal have 3, three and a half, and foure fathom, and in the channel betwixt the north grounds and Haenmans paths againſt the maſt 5, fathom deph, runne in by Haenmans paths, al alongſt until you come to the foot ſtrand, and then edge over to the north ſhore, for to avoid the grounds which lie to the weſtwards above the Soudre, you may, borrow of the ſhowld on the north ſide, by your lead, into ten or eleven foote, according to the draught off your ſhippe. In the right deepe off this edging over, you ſhal have at high water, fifteene foote depth.

The marke of this edging over is a white litle caſtle that ſtandeth on the north ſide of the haven in the valley of the Land, when that commeth over the ſteep point of the innermoſt Iland to the two that lie by the north ſhore, and ſeemeth to be about a mans length high, then you may boldly run in northweſt with it, until that a litle chappel within the Land, and to the ſouthwards of Waſhford) a litle or about a cables length to the northwards of that other forenamed litle Caſtle on the north ſide of that high ragged land, that hath ſerved for a marke to faile over the Barre) cometh over a black hommock that you may ſee upon the high land, a litle to the ſouthwards off the Caſtle of Waſhford, when you ſhal have brought theſe marks one in the other, edge then over again to the ſouth land upon the marks for then you ſhal be above the ſands of the Soudre; and with that courſe alſo ſhal not be in danger of the taile of the ſand that ſhooteth off from the point of Paſſage, which is on the northſide, but it is there broad and large, that a man may there turne to and againe, it is altogether ſhould water, of 10 and 10 foot and a half at high water. Sailing up upon theſe forefaid marks, you ſhal come about the diſtance of a ſhot of a caſt peece without the caſtle of Waſhford to the fouth ſhore faile then in alongſt by it, and keep the founding on the founding of the ſhore until you com within the caſtle, there you may anckor, and ſhal find there about 3 fathom water; For a man that is there unacquainted, it is beſt to anckor there, becauſe before the towne lie ſome funcken rocks; he that wil lie before the town, muſt (right againſt the kay, or the head of market) go a good ways off the ſhore, becauſe a funken rock that lieth thereabouts, and go right againſt the weſt end of the towne, and anckor there in 3 fathom, or thereabouts.

To the ſouthwards of the ſands, that lie to the weſtwards or above the Soudre, goeth a dreeke through, there is more water then in the edging over to the northwardes off the ſands. The marke for to ſail through there is: That you keep the higheſt hommock of the high ragged land (behind Waſhford) right over the caſtle of Waſhford, but there can be nothing gotten by it, with ſailing through there, in regard you muſt nevertheles go over the ſhowldeſt, after that you are paſſed the ſands of Soudre, to wit, over the forefaid depthof ten and eleven foot.

For to faile out from Washford,

For to ſail out from Washford, with a ſhip that goeth deep, you may not lade no deeper then ten foot, or ten foot and a half for to come over the forefaid ſhould, you ſhall then ſail about to the northwards of the ſhowld that lieth within, or to the weſtwards of the Soudre, and goe in and anckor betwixt the ſhould and the Soudre, there you ſhall be landlocke for al windes, except for the ſouthweſt winde you have litle shelter, you ſhal therefore bring out your beſt anckor, in the ſouthweſt, and the other in the northeaſt, becauſe that the winds that com out off the ſouthweſt over the land, doe not put you upon the north grounds. There at the Soudre, you may take in the reſt of your lading, it is a league from the towne.

If you will anckor before the Barre of Washford for to ſtay

for

for the tyde, you muſt anckor a litle to the northvvards of the Barre, and go of fomewhat until you have 8 fathom, there it is cleane fandy ground.

In the night there are two fires made upon the Soudre for the Fiſhermen for to come in by night, by the Haenmans paths, he that will faile in by them, muſt keepe the higheſt fire a litle to the fouthwards of the other,for to avoyd the north grounds.

Beſides the deepe alongſt by the Haenmans paths, the Fiſhermen have a litle channel that goeth out cloſe by the north ſhore, it is there about fixe foot deepe at high water.

Channell through the bancks before Washford

From the Barre of wafhford a man may faile eaſt and by S. and Weſt and by north out and in through betwixt the banks into ſea,or out of the ſea, that is a large and broad channell.

For to faile from the Barre of Waſhford vvithin the ſands through tovvards Dublin, you muſt keepe the founding of the ſhore, and runne alongſt by it in fixe, ſeven or eight fathom, you ſhall ſo faile alongſt about a cables length from the ſhore, which is very cleane without any danger, ſo that any man (having but a litle knovvledge of the Land) may fayle there alongſt by night, only you muſt take heed not to goe further of the ſhore then in 7 or 8 fathom, for not to come foule of the banckes, which are on the innerſide very ſteepe & needle to.

When you are fayled to the northwardes alongſt by the ſhore, about two leagues from the Barre, you ſhall ſee three white ſpots or rockes in the ſand-hill,a litle to the N. wardes thereof ſtandeth a peece of a Wall,much like a pillar of a Church: Right againſt this pillar, a great Engliſh mile from the ſhore, beginneth a ſand, called the Rufch and Ramme, lying from thence alongſt the ſhore to the northvvardes, you may fayle about it on both ſides, but it is beſt to keape the ſhore, and to runne through there within in fixe or ſeven fathom, as is fayd out off feare of the outermoſt banckes, which are very ſteepe, and therefore cannot bee founded, Therefore men doe ſeldome uſe to faile there a feaboard of this ſand.

Right againſt this forenamed Rufch and Ramme, the ſhore maketh a bay unto the point of Glaskarrick, when you are ſo farre is this point, then you are paſt the forefayd ſand.

Point off Glaskarrick. Channell through the banks before Glaskarrick.

The point of Glaskarrick is a low point,a litle to the northwards of it ſtandeth a caſtle.

When you are without the bankes in the north channell, and deſire to come within the banckes, then keepe that caſtle (if you can get ſight of it) a litle to the northwards off the low point, and runne boldly right in with it, unto the land, without feare off the grounds, there is a good channell, through the bancks,& you ſhall not finde leſſe depth then fifreene or ſixteene fathom, until you come to the ſhoulding up againſt the ſhore. This Channel lieth in northweſt.

Glaskarmen.

For to fayle from Glaskarrick to Dublin, run all alongſt by the ſhore (which is fomewhat full of Bayes) and keepe you (as is fore) in eight, ſeven, or ſixe fathom. Two great leagues to the northwardes off Glaskarrick lieth a ſand, a great halfe Engliſh mile from the ſhore, called the Glaskarmen, the ground is very uneven betwixt both. But neverthelesrun through within that ſand and keep the founding of the ſhore, but not ſo far from it, that you come into ten fathom,for then you ſhould faile cloſe alongſt by the Glaskarmen, which is very fteepe, and about two Engliſh miles, or a halfe Dutch mile long.

Arckelohead.

One Engliſh mile to the northwards of Glaskarmen lieth the point off Arkelohead.

Marckes for to avoyd the Glaskarmen.

Sailing through betweene the ſhore and Glaskarmen, to the northwards, a man may fee 2 points, to wit, Mizanhead and to the northwardes off it Wickloehead. If you keepe Wickloehead even within the point of Mizanhead, then you can take no hurt of the Glaskarmen. But if you would faile a feaboard off the Glaskarmen, then keepe Wickloehead a good wayes without the Mizanhead, and ſo runne alongſt a feaboard off it, and you kan take no hurt off it: But if you keepe the point off Wickloehead but even without the Mizanhead, you ſhal not fayle to faile upon the Glaskarmen.

Ledge at Arckelohead

At the north point off Arkelohead lieth a litle ſtony ledge very ſteepe and needle to, A man muſt take moſt head off it (comming from the northwards) & bound to the ſouthwards, and then muſt come no neerer it then in five fathom, towards the ſhore lye ſome litle rockes above water: when you kome from the northwards; and thoſe litle rockes are weſtnorthweſt from you, then are you paſſed it, to wit, to the ſouthwards off that ledge, and then you may againe borrow of the ſhore,upon the lead, commonly men doe keepe ſo farre of the ſhore, that they can take no hurt of the foreſaid ledge.

Baye off Arckelo

At the north ſide of the point off Arkelo is a faire ſandbay, there is a good anckor ground, & alle over good riding in 8,7, or five fathom, in this bay are good ſtore of herringscaught.

Right againſt Arkelo runneth alſo a channell through the bankes into the ſea. For to faile in there out of the ſea, looke out for a round hill within the land; bring that weſtnorthweſt or weſt and by north off you, and fail then in there boldly, keeping it ſo. But if you bring the round hill weſt of you, and faile ſo in, you ſhall faile upon the point of the northgrounds, it is in that channell about ſeven or eight fathom deepe. For to fall into the channell before Arkelo

About an Engliſh mile to the northwards of the point is the river of Arkelo but very ſhowld, at high water there commeth no more then ſixe foot waters.

The coaſt of Waſhford unto Wickely lieth moſt north and by eaſt, a litle more eaſterly: But he that will faile without alongſt by the banckes or fandes,muſt not goe more northerly then northnortheaſt, for to avoid the grounds which lie about Wicklo, three leagues off from the land. And to the ſouthwards the ſouth grouuds ly ſcarce a league from the ſhore, there not long fince a pilot keeping bad reckoning run without the ſandes alongſt north and by eaſt, and failed thwart of Arkelo, behind a taile of land that lieth off from the north to the ſouthwardes, and there loſt his ſhippe. Arkelo lie from them (when they ſat upon the ſand) weſt and by ſouth.

Mizanhead

About two leagues to the N. ward off Arkelo lieth Mizanhead it is a black head. Betwixt Mizanhead & Arkelo in the fareyvay it is 8 & 9 fathom deep,it is alſo betweene them both alongſt the whole coaſt, good anckoring & cleane ground.

Wicklohead.

From Mizanhead to Wickloheadit is alſo 2 leagues, but this reach is ſhorter then the other to Arkelo.

Wolfe

One Engliſh mile to the ſouthvvardes of the point of Wicklo, lieth a litle rock cloſe by the ſhore, called the Wolf, it commeth at half tyde above water, The Fiſhers boats run through vvithin it, but it is not to be done vvith ſhipps.

Horſe-ſhoe

Right to the ſouthwardes of Wicklohead,ſomewhat further out then the point, lieth alſo a rocky ſand, called alſo the Horſe-ſhoe,cloſe unto the point,about ſouth and by eaſt from it a man ſhould for need (when hee cannot do better) faile through there vvithin it, but he muſt be very well acquainted vvith it,or els not vvell to be done, vvithout,it is more certaine and beſt going off ſomevvhat to the deep. If you keepe the point of Ireahead a litle vvithout Wicklohead, then you can take no hurt off, it or if you keep the high inner land, ſo that you may even ſee it above the land of Wicklo, and goe not altogether hidden behinde it, then you goe there vvithout it in 7 fathom. The point off Wicklo is ſteepe and ſtony vvith a double top litle hill, within ſtandeth a little chappell, vvhen you can ſee that through the ſaddle off the hill, then you are right againſt it, and have it on your ſide, the village of Wicklo lieth to the northvvards off the point in the Bay, there is a litle haven, vvhich at high vvater hath ten foot vvateet.

Channell through the banks thwart off Wicklo

In the Bay the ground is ſo hard & chimmell,that the ankors doe not hold there, but without the Bay fomewhat farre from the ſhore, towards the Bancks, the ground is fomewhat better. Thwart of Wicklo alſo is channell through the bancks for to faile that out or in, keepe the Caſtle of Wicklo, that you may ſee it upon of the poynt, thereupon you may boldly faile out or in.

Sugerloaf

Fourteene Engliſh mites from Wicklo lieth the point of Brae, a high ſteep ſtony point, and the high land there about on the ſea coaſt.

Betwixt Wicklo and Brae lieth out a flat point with a litle Fisher village,called Nicattell,there(fayling alongſt)you have foure five and fixe fathom deepe, but from the flat point unto the ſteepe point of Brae, it is well fourteene fathom deepe, the land lieth thereabout north and by north and by weſt.

Road in Poolbegh.

Within the land lieth a high hill, off faſhion like a ſugor-loafe, that is the fartheſt in the land of the three hills, which they call the Vineyards, when you have them through one another, and are northweſt, and ſo keepe them, then may you boldly thereupon run through the bankes into ſea, or out of the ſea, upon theſe markes you may come in within the banckes, that is a very large and broad channell.

Thwart from that forefaid ſugerloafe to the ſouthwards off Brae lieth a banke that is not deepe then 4 fathom, very ſtony and ſharp ground,

Braehead

Braehead is very ſteep, likewiſe alſo the ground by it, is 10 fathom deepe cloſe by the ſhore,to be northwards of the point lieth a litle tyde-haven, there ſtand the houſes called Brae on the north ſide.

Ilandof Dalkey.

From Braehead to the Iland Dalke (lying at the ſouth point of the Bay of Dublin) the courſe is north and by weſt 4 Engliſh miles, there betwixt both goeth in a Bay.

At the N. E. ſide of the Iland Dalke lie ſome rocks, lying alongſt the maine not far from it. Men fayle within the Iland through, & leave al the rocks and the Iland lieth to ſeawards.

The

The ſound of Dalke.

The Sound betwixt the iland Dalke and the maine land, is called the Sound of Dalke, it lyeth northnorthweſt, and north and by weſt through, it is ſeven, eight, and nine fathom deepe men may anckor under the iland, neareſt the Land, there is good ſandy ground, or fomewhat further in, there lieth a round rock, neareſt to the maine land, there men may make faſt a Cable on it, & an anckor thwart of the channell, towards the other rocks, becauſe of the tydes, for the tyde runneth there very ſtrong through. A S.S.E. and a S. and by eaſt winde bloweth there right in, but in regard it is there very narrow, there can goe no great ſea, with a S.E. winde you are landlockt of the iland, and a fouth winde commeth of the maine land.

From the iland of Dalke, untill you are paſſed the village of Dalke, the ſhoare lyeth north northweſt and by weſt, before the village you have ſome fuccour for a fouheaſt winde, the winde being more eaſterly, you lye in the open ſea. You lye therein 8 or 9 fathom, this nearer the iland the deeper, the place is called the Berton road, you may not anckor further to the weſtwards then before the village: to the weſtwards of the village the ground is foule and ſharpe.

Marks for to faile into Wicklo without the Bankes

The north point of the Bay of Dubling, called Houth or Hedeho, is a very high point, it ſeemeth a farre off as if it were and iland, but it is faſt to the maine land with a ſmall and very low necke: To the northwards of it lye the iland Irelands-eye and Lambey, thoſe may bee ſeene (being to the ſouthwards of the point Houth, and being before the entrance of Dublin) over that farefaid ſmall necke of Land.

From the Sound of Dalke to the Barre of Dubling, the courſe is N.N.w.in the fareway it is deep 9, 8, 7, 7, & 4 fathom the nearer the Barre the ſhowlder water. When you fayle up, you muſt keepe the weſtermoſt Rocke that lyeth without at the iland of Dalke, a handſpikes length open of the iland, or the other rockes, and ſhall ſo come before the entrance, without having any let or hinderance of the ſand. Or you may fayle more to the eaſtwards right towards the low land of the norther ſhore, and then by your lead alongſt by it to the Barre.

Irelands-eye.

If you come from the northwards, you may runne in cloſe about the point of Houth by your lead, and then all alongſt by the norther ſhore, untill you come to the mouth of the Barro, there alongſt it is deepeſt water, but towards Dalk it is ſhowlder. From the fouth ſhoare runneth of a great tayle of land, almoſt unto the north ſhoare. To the northwards of it goeth the deep in. Upon that tayle a litle within the point ſtands a Beakon of a malt, made by the Engliſhmen called the Paerfing.

Lambey.

For not to come to neare this forefaid land, comming from the ſouthwards, looke out for the iland Irelands-eye, keep that ſo, that you may but even ſee it over the low land cloſe after unto the high land of Houth, ſo you can take no hurt of that ſand. When the Tower of Saint Patrickes in Dubling, which ſtandeth on the land ſide of Dubling, commeth right over that beacon the Paerfing, then are you yet right againſt the point of the ſand which ſhooteth out a good way to the northwards of the Paerfing. For to goe cleare of that, you muſt runne ſo farre to the northwards, untill the Paerfing commeth right over a litle Caſtle with three turrets, or little towers, which ſtandeth to the ſouthwards of the town, or when the Paerfing commeth betwixt that forefaid litle Caſtle, and the towne, then are you above the point of the ſand, then goe in weſt and by ſouth untill you come over the ſhowlde ſt of the barre, there is at ſpring tyde 15 or 18 foot water, but at low water and neepeyde, not more then ſix foot, you may ſound it on both ſides. When you are over the ſhowldeſt of the Barre, then anckor within the ſand by the beakon in Poelbegh, there it is at high water foure fathom deepe. The marke of this road is, that you bring that afore writtenhill like a Sugerloafe that hebefore is ſpoken of, and ferveth for a marke for to faile by into the Channell of Wickloover another lower hill, then are you in the beſt of the road, bring out your beſt anckor in the ſouthweſt,againſt the blowing of the ſouthweſt windes, which ſometimes come powring downe there very ſtrong out of the S.W. over the high land, and the other in the N.E. At low water the ſands lie dry there round about the road.

Paerfing.

Markes of the land.

Channell through the banks thwart off Wicklo

Greenecaſtle.

Road by Blantarne.

Men may alſo anckor fomewhat further in, at the north ſide of the ſound, right againſt a village called Clantarie in a pool, where at low water remaining 9 or 10 foot water: but round about the ſhip (as it is in moſt places of the haven) it doth fall altogether dry, ſo that there a ſhip hath but even roome to winde up to again. Men do morre there S.S.E. and N.N.W. A S.E. and N.W. Moone maketh there the higheſt water.

Iland Dalkey.

If the ſhips that come there be any thing great, they muſt ſtay in Poelbegh, cloſe before the Town it is very ſhowldly, and falleth at low water altogether dry: with an ordinary tyde men cannot come before the towne with a ſhippe that draweth 5 foot water, but with a ſpring tyde with ſhips that draw 7 or 8 foot water.

At the north ſide of the river, a little further out then the town, right over againſt Ringſend, lieth a litle iland, within it is a fit place to make ſhips cleane.

The ſands or bankes that lie alongſt this Eaſt Coaſt of Ireland from the Tuskar unto Dalke, are on the ſouth ſide, or on the eaſt ſide very ſteep and needle too, ſo that men may not come nearer them then in 24 and 25 fathom, in 20 fathom men are cloſe by them, they are not deeper at ſome places then in one fathom, or one fathom and a halfe: but at the north end by Dalke, about two fathom and a halfe, and three fathom deepe, all ſtony ground, and lye on the of ſide alongſt northnortheaſt, and ſouthſouthweſt, at the north end they lie about 8 Engliſh miles from the land. If you are bound for Dublin, and will go without theſe ſands, run then ſo far to the northwards, untill you kan ſee the litle iland (Irelands-eye) without the point of the bankes Houth or Hedehoo, run then right out to Houth or Hedehoo, and then you ſhall take no hurt of the north grounds.

Marks for to faile without

The N. point of the Bay of Dublin called Houth, is round about cleane, ſo that a man may anckor round about it. To the northwards of it lie the ilands of Irelands-eye and Lambey. Irelands-Eye is the iſſelet, it lieth betwixt the aforefaid point Houth and Lambey: at the weſt ſide of it ſtandeth a litle chappell, right againſt it, you may ride. At the S. end lieth of a ſtony riffe which muſt be avoided. Right over againſt that iland in the maine land lieth a haven for ſmall ſhips, at a litle town called Malcheall.

Malcheall Lambey.

Under Lambey you may ride upon the north ſide for a foutherly winde, in 12 and 13 fathom, but for a fea winde, you muſt ſhift, unto the weſt ſide by a Gentlemans houſe, and anckor there, but it is not very good lying there, becauſe alwayes there commeth in a great ſea.

Drodag

About 7 leag. N.W. and by N. from Lamby, lieth the haven the land lie rocks, called the Skires. About two mi'es to the northwards of Lambey lieth a great rock called Rocka Bill, you may run round about it on both the ſides.

Drodag hath a narrow crooked haven, which is not good to come into without a Pilot, or ſome one that is well acquainted with it.

Foure or 5 leagues to the northwards thereof lieth the haven of Dondalk, which is every ſhowld, and little uſed, at low water a man may go over a foot.

Carlingford.

North and by weſt about thirteen leagues from Lambey, ſeven leagues to the northwards of Drodag, and two leagues from Dondalk, lieth the haven of Carlingford: the north point of that haven is ſomwhat foule and rocky, but you may goe in about it by your lead: the ſouth point is very foule with rocks and ſuncken rocks, which you muſt ſhun, and runne in by the northerne ſhoare: Some fay that men may runne in through betwixt the rocks and the ſouther point with ſmall ſhips, but it is not without danger. When you are within the ſuncken rockes, you muſt runne over to the ſouther ſhoare, and in anckor by it, untill you come before the town of Carlingford, and anckor there in fix, ſeven, or eight fathom, ſo ſhallow as you will, you may faile in upon the eaſt and fare a ſhip without anckor or Cables. Green-Caſtle lieth at the northeaſt ſide of the haven, two miles from Carlingford.

S. Johns point.

About 7 leagues northeaſt or ſomewhat eaſterly from Carlingford, lieth a point called S: Iohns point: betwixt both about 5 halfe wayes lieth the mount of Carlingford, a high Mountain. From S. Johns point lieth of a ledge of rocke, whereof you muſt take heed. A great league to the northwards of S. Johns point, lieth Arglas, from thence forth to the haven of Strang-ford it is 3 ſmall leagues. Arglas.

From the north point of the haven of Strangford, lieth off a foule ledge of Rocks. A little of from the ſouth point lieth a ſuncken rocke, which at halfe ebbe commeth above water. For to faile into this Haven, you muſt leave this ſuncken rocke on the larboard ſide, and goe to the northwards of it, but muſt take good heed of the forefaid ledge at the north point. A man may alſo goe in through to the ſouthwards of the foreſaid ſuncken rocke, betwixt it and the point (but to the northwards of it) is the beſt and the broadeſt Channell. Somewhat further in lieth alſo another ſuncken Rocke at the N. E. ſide, that muſt bee left on the ſtarboard ſide in going in. When that you come then ſo farre as Audleys Caſtles, there you may anckor or runne in about the point on the larboard ſide, and anckor there under it.

About a league and a halfe to the northwards of Strangford lie the Rockes Southrocke and Northrocke, of them read as followeth.

From Strangford Haven to the Northwards lyeth the coast forth N. N. E. one league unto a point which some do call the point of Arglas, others the point or head of Molines; from thence falleth away the coast unto the Bay off Knockfergus northnorthwest.

Point of Arglas. C. de Molines. Southrok Northrok.

By the forefaid point of Arglas or cape of Molines, to with, to the northwards of it, two little miles, lye two great rockes: the southermost is called the Southrocke, it lieth about two miles to the southwards of the northermoft, called the Northrocke. From the fouth end of the Southrocke lieth a ledge off rockes at the least two miles off, alfo one from the northeaft point a great wayes N. E. off into the fea. The N. rocke is a great plate of rocks, whereof many at high water are under water. There goeth alfo from it a foule ledge off unto the land, fo that a man may hardly fayle through betwixt the rocks and the maine land, except a man be extraordinary well acquainted. But betwixt the northrock and the fouthrock goeth a faire broad Sound through, where men may well turn to and again, and at many places may anckor, it is all over good clean fandy ground, 6, 7, and 8 fathom deep.

From the E. fide of the fouthrocke unto the Ilands at the E. point of the Bay of Knockfergus, called Koppen, or Koplond Iles, the courfe is N. N. W. or fomewhat more northerly, about fix leagues: for when men fayle from the E. fide of thefe Ilands to the fouthwards, with a S. S. E. way, they goe farre enough without the north and Southrocks. There betwixt them both lye divers more little Ylands, rocks, and funcken rocks, and fhowlds, for the which men muft take good heed when they will come neare by the fhore.

The Koplands Iles lye about an Engliſh mile from the land, they are on the off fide to feawards, cleane, but from the inner fide there goeth of fome ledges and foule ground, in the midway there going through it is five and fix fathom deepe, but it is beſt to goe without, except for them that are well acquainted. The N. point of the Bay of Knockfergus, lyeth diſtant from the Copland Iles 3 or 4 leagues N. W. or fomwhat northerly, for which a S. E. courſe from the north point towards the foreſaid Ylands, that goeth farre enough without them.

Bay of Knockfergus.

The Bay of Knockfergus is a great broad Sound, about 3 leagues inwards in the Bay W. from Copland Iles, is the road before Knockfergus, there is good anckor ground in 3 fathom and a halfe. Somewhat more further out towards the N. point alſo on the N. fide off the bay, ſtandeth a Caſtle, called Mouſehils Caſtle, by it is a ſandy bay, where is good anckoring as well for great ſhips as ſmall, for the N. and the N. W. winds, but a ſouthweſt winde maketh a bad road in theſe places.

Kow Iland

A little to the N. wards of the N. point of the bay of Knockfergus, lieth a little Yland called kow, from thence lieth the Coaſt off Ireland forth N. N. W. about 9 or 10 leagues unto the

The Maids

Ilands of Raghlcens. Betwixt them both lye the 9 Maydes one great league without the land, and two great leagues to the northwards off the bay of Knockfergus, they are great Rocks, that lye but little above water, or low rocky little Ylands, and a multitude of rocks under water about them, that lye off ſo far to the N. N. E. that men cannot come neare them within 5 or 6 Engliſh miles. There goe ſome Creekes trough the foule grounds, where men (for need) might faile through, but it is no wiſdome to go about it, when there is no need, and that men can do better. Not very long ſince, there came a man (by night unacquainted) therein, and runne through onely upon the ſight of the breaches of the water, & got through without any hurt, but not without great feare and danger. He that commeth off from the faire Forland, muſt (at leaſt) goe S. E. and by E. for to runne alongſt cleare off theſe foule grounds. From the W. ſide alſo lieth off a little tayle off a ledge off Rockes towards the land. Further, it is there cleane, that men may fayle through there within, but men muſt not come nearer the Maydes, then about halfe a channell betwixt them & the maine, but the maine land ſo neare as they will, which is both cleane and cleare, with many bayes, where men may every where anckor, yet here & there lie ſome Rocks, but they are all above water: There is nothing that can hurt you, but men may eaſily ſee it.

A great league to the northwards off the north point of the bay of Knockfergus, & a halfe league S.S.W. from the Mayds,

Old-Bier.

lieth a haven called Old-Bier. For to know it when men come from the northwards, they ſhall ſee two flat little Towers, the one ſomewhat higer then the other, like as if men ſaw a ſhip with maine ſayle and foreſayle, without toppe or toppe-ſailes: theſe ſtand upon the north ſide of the bay.

At the S. point lieth a ſmall round little Yland or rock called

Iland knee

the Knee, a ſpecial marke for to know this Bay, men run in there amidſt the channel. But when you come from the S. wards, & get ſight of the little Yland Knee, then run in cloſe about it.

From Old-Bier to the northwards unto faire Forland, the coaſt is very cleane, that you may ſaile cloſe alongſt by it, boldly without any feare, except you runne farre off from land, without the foreſaid Maydes towards the Scottiſh coaſt.

Faire Fore land.

Faire Hid, or Faire Forland is the outermoſt north eaſt point off the maine land of Ireland, and lieth a little to the ſouthwards of the Yland Rachlcens, to that this point and the point of Rachleens, ly neare about 5. & none from the other.

At Rachleens, or Faire Forland the north eaſt point of Yreland, come Scotland and Ireland neareſt one to another. The Rachleens is an Iland that men may ſayle round about, either to the northwards or to the ſouthwards, as they will, according as it happeneth beſt convenient with winde and tyde. At the ſouthweſt ſide is a faire bay, where is good lying almoſt for all winds. When men come from the weſt it ſeemeth to the S. wards of the Rachleens to bee cloſe without any opening, becauſe the eaſternmoſt point of Ireland Faire Forland, lyeth ſomwhat further out, behinde the Rachleens, but when they come neere betwixt them, ſheweth it ſelfe open by little and little. On both ſides are the ſhores flat and cleane, ſo that men may anckor there where you will, either by the coaſt of the maine land of Ireland, in 8 or 9 fathom, or in the bay under this Iland in cleane fandy ground. Over againſt the Rachleens, Lambes Iland. cloſe by the maine land, lieth another little high Yland, called the Lambs or ſheeps Iland, to the ſouthwards off it betwixt it and the main, men may not come there about it, but betwixt it and the Iland Rachleens it is broad enough.

From the Rachleens unto the Skires Portruſh, the courſe is weſtward weſt diſtant 7 leagues, About two leagues to the eaſtwards off it, in the maine land, lieth Porto Belletrie, a bad roade for great ſhips, the ground is there fowle & ſharpe.

Betwixt Porto Belletrie and Skireſh Portruſh, neereſt unto Chickens: Skires Portruſh, lye the Chickens, theſe are ſmcken rockes, which may be fayled about on both ſides, for to come to anckor under Skires Portruſh.

The Skires Portruſh is a rock Iland, it hath on the ſouthſide Skires Portruſh: a faire bay, where you may lye in five and ſeven fathom, cleane and fandy ground landlock for all winds, except for the eaſtand fandy ground landlock for all winds, except for the eaſtnorthest winde, which belowreth alongſt the ſhoare there open in. For to come under this Yland from the eaſt, you muſt goe cleane and clearer: or elſ if you were minded to goe without, or to the ſouthwards off the Chickens, for to come under the Yland, you muſt ſhun the eaſt point of the Yland, becauſe of a funcken rocke that lyeth a little off from the eaſt point off the Yland. At the northweſt ſide of this bay is alſo a ſmall narrow channell, where you may faile through.

A little to the weſtwardes of Skires Portruſh lyeth the Bant- Banthares

haven, there alongſt you may fayle up unto the new Towne Colran, it is a bad channell to come in as well for reaſon of the ſtrong freſhnet that commeth out, as alſo becauſe it is very ſhowld: with ſhippes that draw eight foote water, you muſt have at leaſt 3 quarters of the flood before you can goe in.

The coaſt of Scholland.

Longhgreane.

The haven or ſound of Loughrean or Lookreen in Scotland by the point of Galloway, lieth diſtant from Faire Forland the northeaſt point of Ireland, E. S. E. about 13 leagues, but the point called Cantir, lyeth diſtant from Loockreen N. W. and S. E. 9 leagues, there betwixt them both goeth up a great broad ſound northeaſt in, called Dunbritain Firth, through Dunbritaine Firth which men fayle up unto Glaskow in Schotland.

The ſound of Lookreen you may faile in, and a good wayes you may turn into and againe for to anckor there within for weſterly winde, if you doe come no neere the Gores on either ſide then in foure fathom, you can anckre no hurt: you may anckor ſomewhat in, by the ſecond high point on the eaſt ſhore in 10 or 12 fathom.

About ſeven leagues to the northwards of the point of Galloway in the foreſaid great ſound, lyeth a high ſharpe Yland, Elze Iland cleane round about, off faſhion allmoſt like unto a poock or Hay, called Ailza, or Elzee, there you may boldly fayle round about it, it is there round about it, and cloſe by it eighteen fathom deepe.

From Elzee northwards ſixe leagues lyeth alſo another litle Yland, cloſe by the eaſt ſide off the great Yland Arreu, called Lamblaſh, or Lam-ile, cleane alſo round about, there you may Lammle Ile fayle round about it, and anckor under it for all windes in ten, twelve, or thirteen fathom, to wit, within it, betwixt the Iland and the great Yland off Arren.

Commer Ile

North and by eaſt and northnorthweſt two great leagues from Lamme-ile, lieth an Yland by the point off the maine Bay of Commer land calleth Commer-ile, on the eaſt ſide off it betwixt the Ile-Yland

Iland and the maine land, you may ſayle through in to a faire bay, where men are land-locks for all winds, and from thence may faile forth unto Dunbrittaine, or into the river Glaskow. The foreſayd Iland Commer-Ile lyeth from the iland, Elzee, about north and by eaſt. For know ledge of this iland, when men come of from Elze, or from the ſouthwardes towardes this iland, men ſhal ſee a great caſtle on the E. ſide of the maine about a great league to the ſouthwards of Commer Ile, and alſo a little caſtle, a good wayes to the northwardes, cloſe upon the water ſide, that ſtandeth right to the ſouthwardes of the iland Commer-Ile, or the ſound that lieth there into the eaſtwards of it, upon the ſame iland ſtandeth alſo a little caſtle cloſe to the water ſide. Runne in betwixt the iland and the maine land, about N. N. E. in, and leave the iland a great cables length on the larboard ſide, and the maine land on the ſtarboard ſide you muſt ſhun more, becauſe of a great ledge that lyeth off from it towardes the iland, and ſomewhat more northerly. Having Gotten cleare of the end of this ledge runne then right towards the maine land into the bay, or ſound, & anckor there in ten fathom, right againſt a ſtone houſe with an orehard there by, it ſhall be then a ſtearne your ſhip about ſeven fathom deepe, and there morre your ſhip well.

To fayle from Commer-Ile to Glaskouw.

For to fayle out of the Sound of Commer-Ile, towardes Glaskow, goe firſt N.W. and by N. unto by the point of the iland, that is, to the weſtwards of you, and then north, alongſt by it, then by little and little more eaſterley, alenght N. E. runne ſo all alongſt by the eaſterland, without leaving of it, you ſhal come faire to come to the Sound of Glaskow. Coming by the point runne cloſe about by it firſt eaſtnortheaſt, eaſt, and by ſouth, at leaſt eaſtſoutheaſt; all alongſt by the ſouther ſhore, you ſhall ten fee a caſtle ſomewhat a head upon the ſouther land, cloſe upon the water ſide, with two tuffes of trees upon the high land right eaſtſoutheaſt from the caſtle; keepe that foreſayd caſtle betweene Tuffes of trees, and ſayle in thereupon, ſo ſhall you run right, alongſt the deepeſt off the Creeke, there is at high water five fathom, and at low water three fathom. From the north ſhore lieth off a great ſhowld, which lyeth over the Sound more then two third parts from the norther ſhore, towards the ſouth ſhore it falleth dry at the loweſt water, therefore men muſt ſhun the northerſhore, and runne alongſt by the ſouther ſhore. There ſtandeth a white caſtle upon the ſouth ſhore, right againſt that begin te foreſayd ſands. In the Creeck it is ſoft ground, but towards the ſand the ground is hard, therefore when you feele by your lead that it is ſomewhat hard, that is a token that you come to neere te ſhoulds, faile then ſo forth upwards to Dunbrittaine, there lyeth a little iland on the ſouth ſhore, which is it low water ſait to the iland, wen you ſhall be paſt it about two Cables length, then anckor there in five at high water.

A ſouth & by weſt moone maketh there te higheſt water.

Of the Tydes and Courſes of the ſtreames.

At Waterford an eaſt and by north, and weſt and by ſouth moon maketh high water.

Without the land in the fareway betwixt Silly an Ireland, a ſouthweſt and by weſt moone maketh high water.

In the channell or entrance of Washford, an eaſt and weſt moone.

The flood runneth there to the northwardes, at ten high water a halfe tyde, and the ebbe contrairwiſe to the ſouthwards. a halfe tyde after low water, but not ſo ſtrong as the flood.

On the eaſt Coaſtes or Ireland to the ſouthwards off the bay of Dublin. a ſouthſoutheaſt and northnorthweſt moone maket high water.

At Dublin a ſouthweſt and northweſt moon.

The flood runneth from the Tuskar without the bankes alongſt betwixt Ireland an Engeland northnortheaſt, and the ebbe ſoutweſt.

On the Coaſts a S.S.E. and N.N.W. moone maketh high water.

The flood commeth here from the ſouthwardes, and alſo from the northwardes, about the north part off Ireland, an meere one another about right againſt Carlingford, where they ſtoppe one the other. The ebbe contrairwiſe falleth (to the northwards off Carlingford) to the northwards, and (to the ſouthwards of Carlingford) to the ſouthwards.

On the eaſt of Ireland from the Southrock and northrocke unto the Coplands Iles. a ſouthſoutheaſt and northnortheaſt moone maketh full ſea. But to the northwards of it a ſoutheaſt moone.

On the Iland off the Ragleens and Skires Portruth an eaſtſoutheaſt and weſtnorthweſt moone.

The flood commeth there out of the weſt, and falleth through betwixt Ireland and Scotland: From the cape Cantir to the mull of Galloway, ſouthſoutheaſt, unto the land Man, there the flouds out of the ſouthland north doe meet one to the other. The ebbe contrairwiſe falleth alongſt the coaſt northnorthweſt betwixt Ireland and Scotland to the weſtwards unto the Ocean ſea.

At Engliſhoun in the Sound of Glaskow, a S.W. moone maketh fullſea.

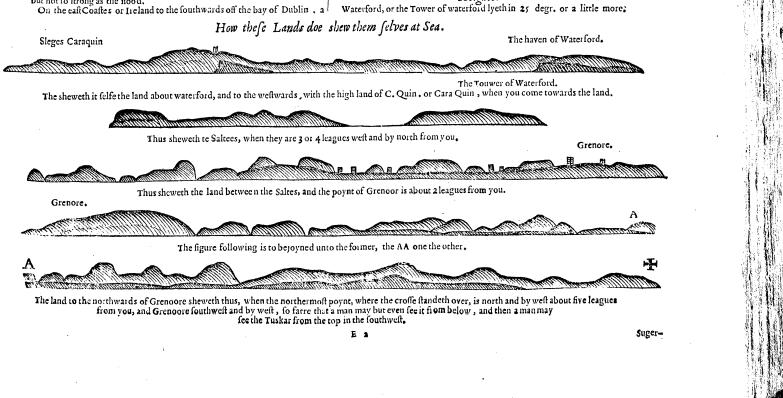
Courſes and Diſtances.

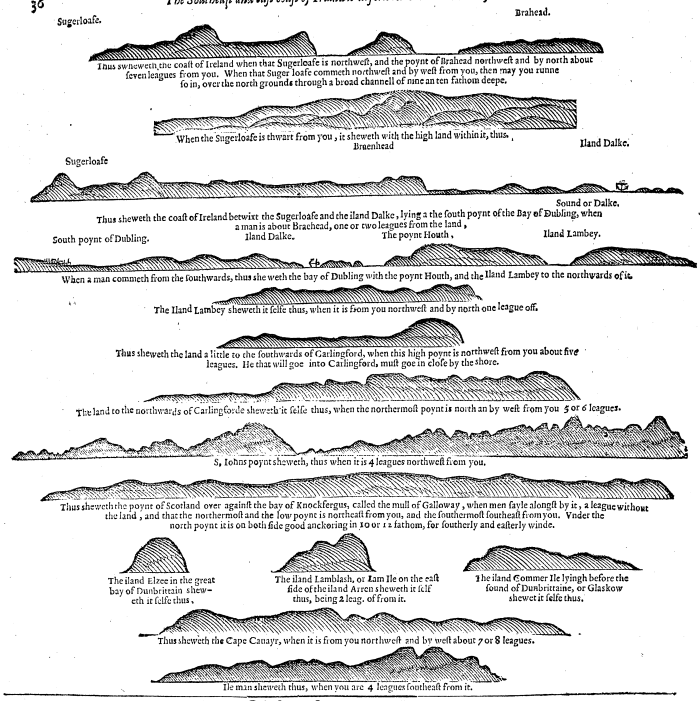
From Waterford to the Ilandes of the Saltees caſt, but to goe about to the ſouthwards off them eaſt ſoutheaſt,	3 leagues
From the ſouth end off the Saltees to black-rock northeaſt and by eaſt	2 leag.
From blackrock to Carnarootnortheaſt ——	1 league
But to Grenoge ——	3 leagues
From the Saltes to the Tuskar eaſt northeaſt, but from without the fowle ground to the ſouthwardes of the Saltees northeaſt and northeaſt and by eaſt ——	7 leagues
From blackrock to the Tuskar eaſtnortheaſt ——	2 leagues
From the Tuskar to Grenoge northeaſt and by weſt, and weſtnorthweſt 3 leag.	
From Grenoge into Grene-bay firſt northweſt and by north, and then weſtnorthweſt ——	1 league
From Greene-bay to the Barre off Washford, N. & N. & by W. one great leag.	
From the barre of Walshford into Washford about one league and a halfe.	
From Waterford to Grosholm eaſt and by ſouth ——	12 leagues
From the Tuskar to the rock Macus eaſt and by ſouth	8 leagues
From Tuskar to the rocks Smels ſoutheaſt and by ſouth about	10 leagues
From Tuskar to the land-end of England ſouth an by eaſt ——	40 leagues
From Waterford to the lands-end of England ſouthſoutheaſt but to Silly ſouth and by eaſt, ſomwhat ſoutherly, ——	40 leagues
From the poynt off Clokaracle to the poynt off Arkelo north and by eaſt 4 great leagues	
From Arkelo to Mizzenhead north and by eaſt, ſo newhat eaſterly	3 leagues
From Mizzenhead to the poyne of Wickloo north and by eaſt ſomewhat eaſterly ——	3 leagues
From Nicallice to the poynt of Brae north, and north an by weſt one league and a third part.	
From Wicklohead to brachead north, and north, an by weſt	5 leagues
From brachead to the iland off Dalke north, and by weſt,	2 leagues
From Dalke to the barre off Dublin northnortheaſt, two leagues and a half.	
From the Sound of Dalke the poynt Houth northnortheaſt. two leagues and a halfe.	
That courſe runneth without the poynt Houth, Irelands eye, Lambey, and Rock a bill.	
The bankes lye from the Tuskar to the north-end northnortheaſt and ſouthſoutheaſt.	
From the barre off Dubling to Holy-hil in the iland Anglefey eaſt and by ſouth ——	19 leagues
From the barre to the Town Dublin weſtſoutheaſt ——	two leagues
From Lambey to Drodagh northweſt and by north ——	1 leagues
From Lambey to Carlingford north an by weſt	13 leagues
From Carlingford to S. Johns poynt northeaſt, ſomwhat eaſterly	7 leagues
From S. Johns poynt to Strangford northeaſt and by north	4 leagues
From Lambey to the South-rocke northnortheaſt,	21 leagues
From the Northrock and Southrock unto the Coplands Iles N.N.W. 6 leag.	
From the Coplands Iles to the north-poynt off Knockfergus northweſt ſomwhat northerly ——	3 or 4 leagues
One league to the northwards lyeth the haven off Oldeſtier,	
From Oldeſtier to the Kaglleens weſt in the Maydes, through northnorthweſt ——	6 or 7 leagues

Heights.

Waterford, or the Towver of waterford lyeth in 25 degr. or a little more;

How theſe Lands doe ſhew them ſelves at Sea.





The fifth demonſtration,

In Wich the Coaſt off Vlſter and Munſter from Bandharven to Mizenhead, are declinated.

Lough-foile.

WO leagues weſtnorthweſt from Bantharen, or weſt and by north from Skires Portruſh, lieth te haven of Loughfoile, before it lieth a great plate of ſand called the Touns, which lyeth from the weſt poynt of the haven a great wayes to the northwardes off from the ſhore, when the winde is out of the ſea, it breaketh very much upon it, with ſmall ſhipps that draw litle water, men may fayle into Loughfoile haven at high water to the ſouthwardes of the Touns, betwixt the Touns and the ſouther-poynt, called Magillions poynt, but it is there very uneven, and at full ſea there cometh no more then eight foote water, but alongſt tho the weſtwards off the Touns, it is very deepe, men may found about the Touns on the off ſide in foure fathom.

Touns.

For to finde the Channell that lyeth into the weſtwards off the Touns, (comming from the eaſt, or alongſt by the Touns) you muſt looke out for a litle ſandy Bay, that lyeth on the weſt-ſide, even within the north-poynt of the river under the high land; bring it ſo, that you may ſee it open of the foreſayd north-poynt, and fayle in there upon, untill you come by the land, and then runne in alongſt by it ſouthweſt until you come right againſt Greencaſtle. If you come from the weſt or the north, you may boldly without feare runne alongſt the ſhore, and about the poynt upon your lead, without comming neere the towne, you may ſee any thing that might doe you hurt, comming by Greencaſtle, there may you anckor ſo that you may ſee Withcaſtle without the point of Green-caſtle, there you may lye within the Towns, ſheltred for windes out of the ſea.

Road in Lough-foile.

For to fayle up from Green-caſtle, you muſt runne up alongſt by the weſt ſhoare by your lead, and ſhunne the litle ſandes that lye here and there alongſt that ſide, untill you come paſt With-caſtle, right againſt the three trees, there is the ordinarie road,

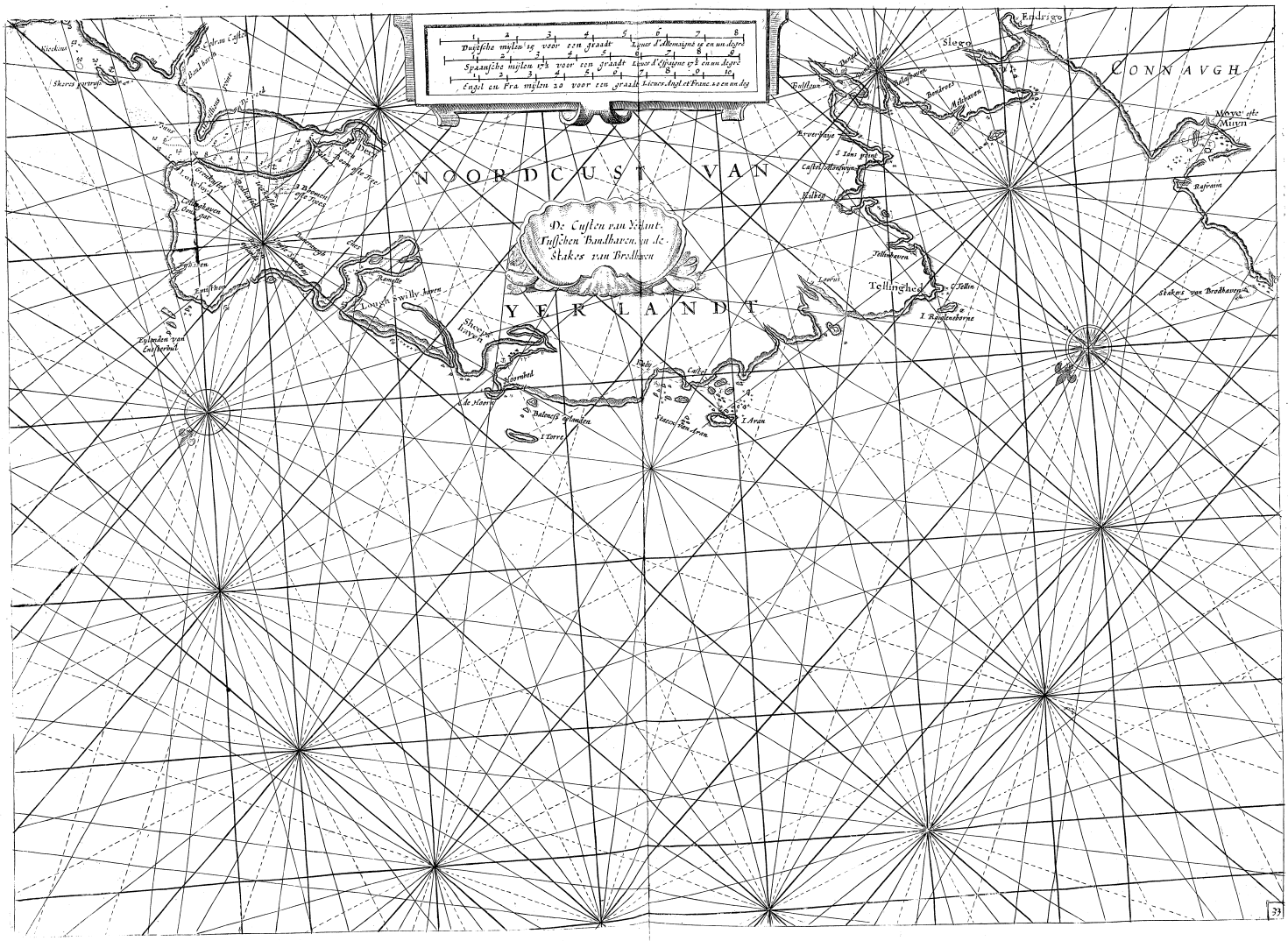
Betwixt Green-caſtle and With-caſtle neereſt unto Greencaſtle goeth a Creeke or Slencke through the grounds, unto the eaſter ſhore, which is as deepe or deeper then the right fareway unto With-caſtle. When men come off from Greencaſtle, they muſt take good heed not to goe farre off from the weſter ſhore, leſt they fall into that Creeke.

How men ſhal fayle from the foreſayd roade forth up unto the Towne Derry, they may preceive or marke by the card.

Ilands Enesterhul.

From Lough-foile-haven unto the ilands Eneſterhul (by ſome called Monſterhul) the courſe is northweſt foure or five leagues, theſe are ſmall black ilands of rockes, not very high above water, and lye a litle of the northermoſt point of Ireland, called Eniſton, a high plaine land, & very good to knowe for him that hath once ſeen it. Betwixt the ilands and the point men may faile through, but not without great danger for them that are not very well acquainted with it, becauſe off much fowle ground and ſhowlds that lye betwixt them both. Under the foreſayd point Eniſton, on the weſt ſide, men may anckor for eaſterly windes, or els to ſtoppe the tyde.

From


Duytsche mylen 15 voor een graade
Lieues d'Allemaigne 15 en un degré
Spaansche mylen 17½ voor een graade
Lieue d'Espagne 17½ en un degré
Engel en Fra mylen 20 voor een graade
Lieues Angl. et Franc. 20 en un deg
De Custen van Yrlant.
Tusschen Baudharon, en de
Stakes van Brodhaven
NOORDCUST VAN
YERLANDT
CONNAUGH
Sligo
Enniskillen
Ballyshannon
Donegal
Bundrows
Mulkeuen
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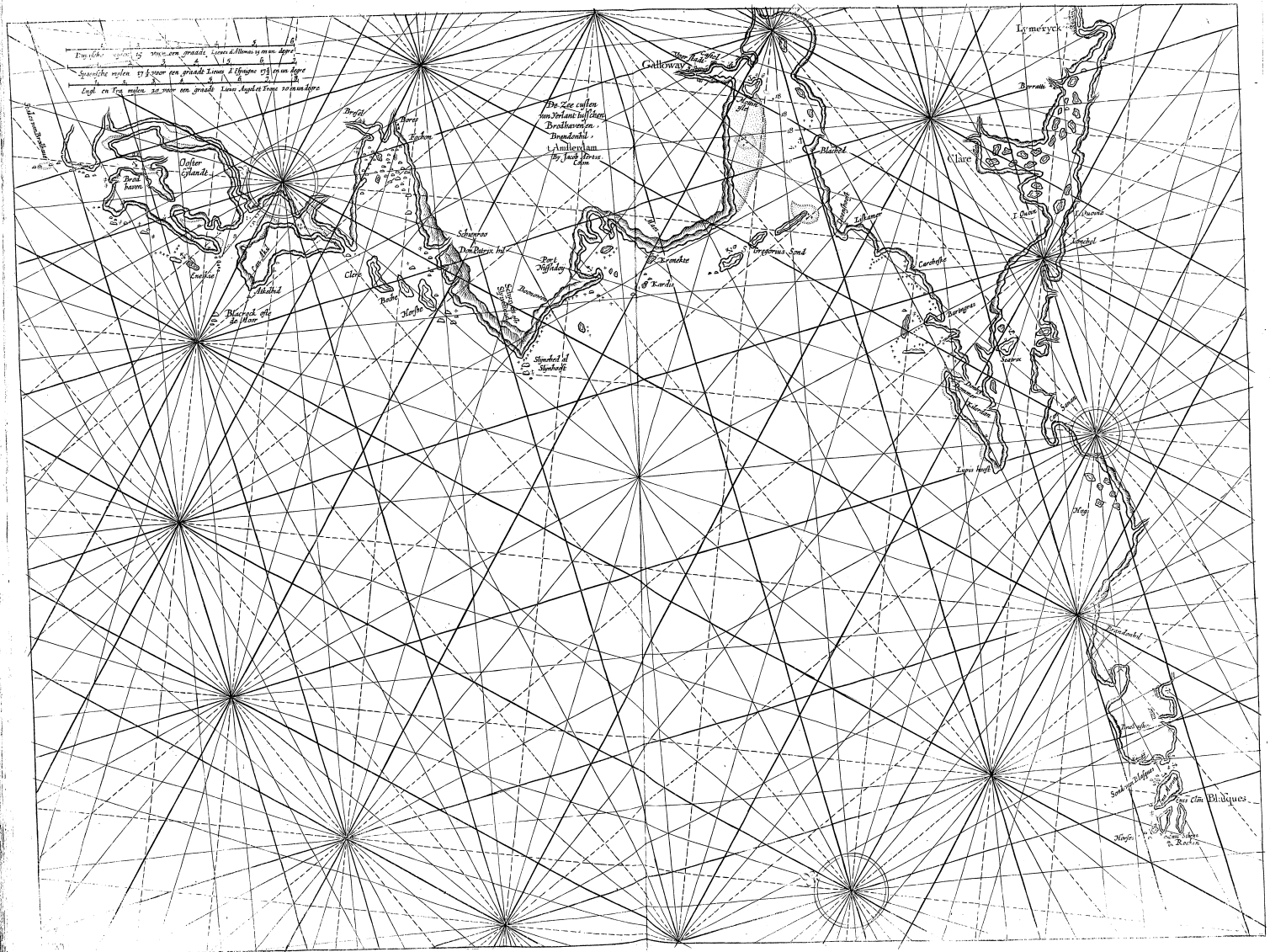

Engelsche mylen 15 voor een graade Lieues d'Allemag. 15 en un degre
Spaensche mylen 17½ voor een graade Lieues d'Espagne 17½ en un degre
Engel. en Fra. mylen 20 voor een graade Lieue Angl. et Franc. 20 en un degre
Lymeryck
Galloway
Clare
Bloquel
Breskens
Borsel
Eghem
Oosterlandt
Breskens
Schouwen
Dom Burgh. Inl.
Cloet
Vlissingen
Vlissingh
Stavenisse
Zierickzee
Karels
Tergoes Sand
Carthagena
Tergoes
Zuyrop
Zuyrop Hoeck
Hoogh
Vlaendersche
Sluys
Sluys
Ems
Ems Cloe
Blaricum
Hoofse
Bancken

Lough-Swilly.

From the ilands Enesterhul unto Lough-swilly, of some called Lockfilie, the course is southwest 5 leagues, that is a faire haven. For to sayle in there, men must shunne the west side, and goe in alongst by the easter shore: The land about Lough-swilly is the highest land of the whole north coast of Ireland, and thereby it is also very good to know, for those that (coming out off the north) do fall with the lands there abouts.

Foure or five leagues westsouthwest, or somewhat westerly lyeth a large broad haven, called Sheepesharven, but it is at some places towle ground, within it men may lye landlockt for all winds. The west point lieth out, called Hornehead, or Cape de Horne, upon it is a hill with two hommockes; to see to like two hornes and there after the point is named.

Hornehead Cape de Horne.

At the west side of this point, men may ride and anchor within the rockes for easterly windes. Betwixt Lough-Swilly and sheeps haven lieth also a Bay, where men may ancker, but the ground is not very cleane, and right against it in the offing, halfe a league from the land, lyeth a ledge of rockes; which at high water are under, and at low water lye above water, men may (for need) goeth through betwixt it and the land, but without it is best and surest.

Westnorthwest about two leagues from Cape de Horne or Hornhead, lyeth the iland Tore, to the southwards off it lye three Ilands, called the ilands of Baleneffe, men may sayle through to the southwards off Tore Iland, to wit, betwixt Ile-Tore, and the Ilands of Baleneffe, and also within the rockes.

Tore Ile. Ilands Baleneffe.

From the Iland Tore to the Iles of Aran, the course is southwest and by south 6 or 7 leagues, betwixt them both, not far from the iland Aran, lye some high rockes, called the Staggs or Aran. Alongst all that coast betwixt Horne-head and the Ilands of Aran, is good anckor ground all over.

Ilands off Aran. Staggs off Aran.

For to come to anckor under the ilands of Aran, comming out of the north, run alongst by that great iland, leaving it on the starboard side, untill you be within it: goe then towards the southwest, and anckor on the southeast side, there is the roade. Men may also anckor in the ilands over against it towards the maine, in divers places, and lye landlockt for all windes.

Upon the northwest point of Ireland, a good wayes landwards in lieth a high hill, of fashion allmost like a Sugerloafe, which is seen in cleare weather before any other land, at least nine leagues at sea: When that hill lieth east and by south from you, and then sayle in right with it, you shall not misse to fall right with the great iland Aran.

From the Iland Aran unto the point Tellinghead, called by the Irish cape de Telling, or Tellin, the course is S. S. W. 8 or nine leagues. Three or foure leagues to the northwards of C. de Tilling lieth an iland, called Raiglene borne.

Cape de Telling. Telling-head.

At the Cape Telling lieth a little iland, halfe a league from land, men may saile through betwixt the iland and the Cape, boldly without any danger.

To the southwards of C. de Telling, to wit, betwixt the Cape and the Stagges of Broadhaven, lyeth the land with a great baye, where in lye many goed havens, as Tilling-haven, Kilbegh, Dungall, Ballashaven, Slego, Endrigo and Moye.

Kilbegh.

From the Cape of Telling unto Kilbegh lieth the coast E. S. E. about foure leagues: betwixt both, about one league and a halfe from the cape, lieth Telling-haven, a round bay with good sandy ground, there may about 30 ships lye, west and southwest windes doe blow there open in, for all other windes men are there landlockt.

Kilbegh, or Calebegh is also a faire rund bay, but it is very narrow at the comming in of it: When men are a little from the shore, it seemeth to bee all close without any opening. About a halfe a league to the westwards of this bay, a quarter of a league from the land, lyeth a little iland, which is very low and plaine, at both ends going plaine downe, that is a good mark to know this foresayd bay, men may also saile through betwixt the iland and the maine, if they will. When you come out of the west, and are passed that Iland, then go neere the shore, which is clean and cleare, and go freely close aboard of it, untill you shall see this bay open, and then sayle boldly in, without any feare, betwixt the two shores there is nothing (neither in the going in, neither within in the bay) that can hurt you, if you doe not sayle upon the shore. When you shall be come in, anckor where you please in five six, seven, or eight fathom, so showld or deepe as you wil, on the north side within the Bay stands a little Castle.

About a little league to the eastwards lyeth another Bay within some rocks, called Mackswynsbay, but it is not to goe in, except men be very wel acquainted, they must go betwixt the rocks in untill they bee gotten in, there they may lave a ship without castle or anckor.

Mackswynsbay.

A great league to the southwards of Kilbegh, lyeth along lying out point, called S. Johns point. Right west from that point, a quarter, or a little halfe league, lieth a great Rock under water, whereupon the sea breaketh with great noyse. Betwixt that rock, and the point of S. Johns point, men may sayle baldly through, it is there cleane and cleare.

S. Johns point.

About two great leagues to the eastwards of that foresaid point S. Johns point, lyeth the haven of Dungall, into the southwards. For to saile in there, you must first shun the easter shoare, which is very soule with dry plates and Rocks. When you are come right against a little castle that standeth on the north side, right against it lieth of a little riffe from the shoare that you must avoyd also. And when you are come about the point of that riffe, you must goe over again to the north side, for the south side is there flat and showld. Betwixt Saint Johns point and Dungal haven alongst the coast is all over good anckor ground.

Dungall-haven.

The haven of Moy hath at the comming in abroad bay, in it lye some rockes. For to sayle in there, you must leave them all on the west side, that is, on the starboard side, & run towards a little sandy iland, that hath at the north end a little riffe, you must goe into the westwards of it, and leave that iland on the larboard side. Even within that forefayd iland lieth another little round green iland, that must be left on the starboard side, so soon as you shal be right against it, you must let fall your anckor, for a litle further it is showld & hard sandy ground, the greatest anckor must be brought towards that forefayd long small iland, & the small anckor towards the litle greene iland, it falleth there at low water alwayes dry. If you will goe from thence before the Town Moy, you must light your ship to 8 foot, for to come through betwixt the long small iland, and the S. grounds, there is at high water with an ordinary tyde no more then 9 foot water, being come over the neck, you shall come into a poole before the towne Moy, there you may ride a float at low water. In the road against the iland it is 15 or 16 foot deep.

Moy.

The Stagges of Bread haven are Rockes that lye to the northwards a league or a league and a halfe at seaboard of the point, to the northwards of Broad-haven.

Staggs off broad-haven.

Broad-haven lieth in S. and by west, in the sound lye 3 or 4 rocks, these must be left on the larboard side, & runn in there alongst to the westwards, until you come within the haven.

A great league to the westwards of Broad-haven lieth an out point S. W. from the Staggs. From thence lieth the coast alongst to Black-rock S.S.W. Black-rock is a great high black rock with more other rocks by it, and lyeth from the forefaid point S.S.W. distant about 6 leagues, & about a league northwest from the out point Acklehead.

Blackrock

Acklehead is a very high point, and sheweth it selfe a farre off like an iland with a great Saddle, thereby it is good to be knowne. Within this point lye also 2 exceeding high hills, which together with the point men shall see first at sea before any other part of the land, so that the point doth shewit selfe first like three ilands. Men may sayle throught betwixt Acklehead and Black-rock; comming from the southwards men doe leave Acklehead on starboard, and black-rock (with the rocks thereby a seabord) on larboard, and the course lieth through betwixt them both northnortheast and north and by east unto the point of Broad-haven, it is there large and wide.

Acklehead

To the N. wards & to the E. wards of Acklehead, lie divers havens, where it is good riding, a litle to the N. wards of Acklehead, you may run into the w. wards, betwixt the low land to the N. wards on the larboard side, and the high land of Acklehead on the starboard side, a great wayes in, and anckor in 7 and 8 fathom, landlockt for all winds, and from thence may come out againe to the N. wards, or else may come out into the sea again to the S. wards round about the land of Acklehead.

From Acklehead to Sleynshead by the seafaring men called twelve-pence, because the land doth shew it selfe in 12, round hommocks) the course is fourth and by east 10 leagues, betwixt them both lye three ilands before a great bay, the northermost or next to Acklehead is called Cleere, this hath a high hill on the N. end that is very steepe, & at the south end it is flat going downe. The second or middlemost is called Boche, within it is a road for those that are bound to the S. wards, where men may anckor in foure fathom: The southermost is called the Horse.

Sleynshead Twelf pence.

Betwixt Acklehead and Twelve-pence lyeth within in the land, a very high hill like a Sugerloafe, called S. Patricks-hil, or by some Don Patrix, that may be seen far at sea and shall be seene long, altering it selfe by the cliffe land, as men saile long the coast to the northwards, or to the southwards:

patricks-hill.

From Sleynshead, or twelvepence unto the sound of S. Gregories, before the bay of Galloway, the course is S. E. 9 leagues.

Before the bay of Galloway lye 3 great Ilands, called the

Ilands of Aron. Ilands of Aron, the northermoſt is greateſt, the channell betwixt the northermoſt and the middlemoſt, is called the ſound of S. Gregory, which is on both ſides cleane without any foule ground; ſo that men may turne in to and againe from the one iland to the other, without feare of taking any hurt. The N. ſide of the middlemoſt ilands is nothing elſe but faire ſteep rocks: when you are come within the ilands, you muſt ſhun the middlemoſt, becauſe of a litle riffe that lieth of it.

S. Gregories found.

Men may alſo ſaile to the northwards of the northermoſt iland, into the great bay of Galloway, likewiſe alſo to the ſouthwards of the ſouthermoſt, to wit, through betwixt the ſouthermoſt iland, & the maine land, but that iland is foule at the ſouth end of it, & therefore you muſt run in alongſt cloſe by the ſouth ſhoare, or at leaſt leave two third parts of the channell towards the iland, as well in ſailing in as ſailing out.

Somewhat within the ilands, on the ſouth ſide lieth a high black point, called blackhead, you muſt beare into it, & alongſt by it in, whether you come in at the ſouther channel, or throuh S. Grigories ſound, or elſe in at the norther channell, for the north ſide of the bay is foule and rocky. About 2 great leagues N.E. from Black-head, lieth an iland, called Motton-ile, under it on the E. ſide you muſt anckor in a poole, in 5 or 6 fathom.

Blackhead

Motton-ile

You cannot ſaile further up to the northwards into the River with ſhippes, but onely with boats. A northeaſt and S.W. moone maketh there full ſea, and it floweth there ſo ſtrong in the baye, that the rockes which at low water are above water, at high water you may ſaile over them, at low water the ſpring tydes, the grounds fal dry W. S. W. from Motton-ile, a great league and halfe of, moſt all rocky and foule ground.

When you ſaile from Blackhead towards Motton-land you muſt take heed of the north-ſide, and edge over moſt towards the ſouth ſide. About halfe wayes betwixt them both, lieth a plate or ledge neareſt the north ſide, you muſt goe in alongſt by it to the ſouthwards.

Lupithead

From the Bay of Galloway to Lupithead, the north point of the haven of Limbrick, the courſe is ſout ſouthweſt nine or 10 leagues. About halfe wayes betwixt them both, lieth a litle iland that is foule round about with ledges of rocks that lye of to ſeawards a league and a halfe a ſeaboard the land.

Haven off Limbrick Seatrick.

To the ſouthwards of the point Lupithead goeth in the haven of Limbrick. Three or foure leagues eaſtnoortheaſt within the foreſaid point, lieth an iland, called Seatrick, you muſt ſayle alongſt without in to the ſouthwards, & leave it on the larboard ſide in ſailing up. At the eaſt ſide of that Iland is a good road. About halfe wayes betwixt that iland and Lupithead, lieth aſhowld which you muſt ſhun, & ſaile alongſt to the ſouthwards of it. From the iland Seatrick unto Limbrick, are more 12 or 13 leagues, firſt from thence to the Iland Quoine 4 or 5 leagues there are two litle Ilands, you muſt ſaile cloſe alongſt to the northwards of them: from thence E. N. E. unto a great rock, called the great Beefe, and then ſoutheaſt unto another great rock, called the litle Beefe.

The great and litle Beefrocks

When you are come before the towne in the Haven, you muſt make faſt on the Caſtle with three or foure Cables, for there goeth a very ſtrong tyde as well of flood as of ebbe. An eaſtnortheaſt Moone maketh there full ſea.

From the haven of Limrick to the haven of Smerrick the courſe is ſouthweſt ſeven or eight leagues, betwixt them both lieth the coaſt with a great Bay, wherein lie ſome litle ilands, called the Hoggs.

A litle to the eaſtwards of Smerrick lieth Sinbrandonhil, a very high hill, which lieth in height very much above all other lands thereabouts, they that come out of the ſea from the weſtwards, ſhall fee that hill firſt before any other land, and therby eaſily know it: Men may ſee at ſea in the offing, 12, 14, and ſometimes 16 leagues of, according as the weather is cleare.

Foure leagues weſtſouthweſt from Smerrick, a litle of from the land lye 4, or 5, Ilands, being high round Hills and rocks, called the Blackeys, with ſome other rocks and litle Ilands about them. The Sound betwixt them and the maine land, is called the Sound of Blaskeys, lieth through neareſt N. W. and S.E. Hee that is bound to the nordwards, may anckor at the ſouth ſide before the ſound for weſterly and northerly winds, and not be in-bayed upon no leeſhoare: For of the winde ſhift eaſterly, hee may either goe through the ſound, or elſe goe about a Seaboard the Blaskeys. If the wind ſhift weſterly or ſoutherly, he may run through the Sound, and further his voyage. There runneth through a very ſtrong tyde, as well of the flood as of the ebbe which muſt be conſidered.

Of the tydes and courſes of the ſtreames.

In the haven of Loughſoile an eaſt and by S. and weſt and by north Moone maketh full ſea. The flood commeth there out of the weſt and northweſt.

At the Ilands Eneſterhall, and in Sheepeſhaven an eaſt and weſt Moone maketh full ſea. The flood commeth there out of the weſt.

In theſe other foreſaid Havens and roads an eaſtnortheaſt and W.S.W. moone maketh full ſea. In the offing a ſeaboard a ſouthweſt and N.E. Moone.

Courſes and Diſtances.

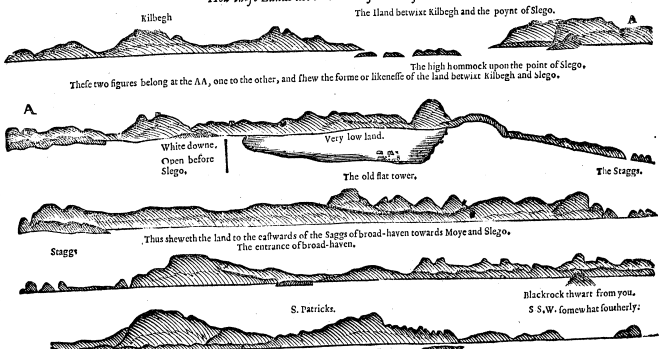
From Loughſoyle to the Ilands Eneſterhall northweſt	——	4 or 5 leagues
From Eneſterhall to Lough Swilly ſoutiweſt	——	5 leagues
From Lough Swilly to Sheepeshaven weſtſouthweſt weſterly	——	4 or 5 leagues
From C. de Horne, or Hornhead, to the Iland Tore weſtnorthweſt	——	2 leagues
From the Iland Tore to the Iles of Aran ſoutweſt and by ſouth	——	6 or 7 leagues
From the Ilands of Aran unto Tellinghead S.S.W.	——	8 or 9 leagues
From C. de Tellin or Tellinghead to Kilbegh eaſtſoutheaſt	——	4 leagues
From cape de Tellin to the Stagges of broadhaven ſouthweſt	——	11 leagues
From Acklehead to Sleynshead ſouth and by eaſt	——	20 leagues
From Blackrock to Rokoll north and by weſt	——	60 leagues
From Sleynshead unto the bay of Galloway, ſoutheaſt	——	9 leagues
From the bay of Galloway of Lupithead the N.point of Limbrick haven S. S. weſt	——	9 or 10 leagues
From Lupit head to Smerrick ſouth weſt	——	7 or 8 leagues
From Smerrick to the blaſkeys weſtſouthweſt	——	4 leagues
From Sleynſhead to Sinbrandonhill ſouth and by weſt	——	22 leagues
From the bay of Galloway to the blaſkeys, S.W. and by S.	——	23 leagues

Heights.

The Ilands of Eneſterhall at the northermoſt point of Ireland lyeth in 55 degrees and 10 or 11 minutes

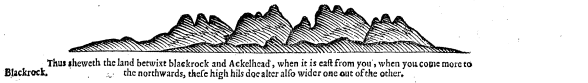
The River of Galloway lyeth in —— 53 degrees 10 min.

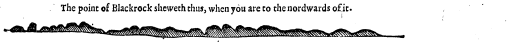
How theſe Lands doe ſhew them ſelves at ſea.



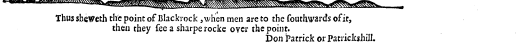
The land to the northwards of Blackrock, as farre as the Staggs, and then to the ſouthwards alongſt paſt S. Patricks hill, ſheweth, as in theſe two figures is deſcribed, when men are thwart of Blackrock.

This



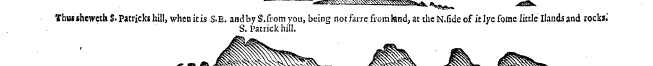


Don Patrick or Patrickshill.



S. Patrick hill.

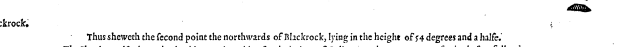
S. Patricks-hill.

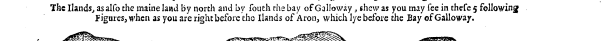


Thus sheweth the second point the northwards of Blackrock, lying in the height of 54 degrees and a halfe.

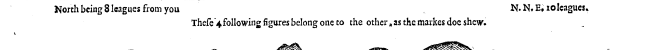
The Ilands, as also the maine land by north and by south the bay of Galloway, shew as you may see in these 5 following Figures, when as you are right before the Ilands of Aron, which lye before the Bay of Galloway.

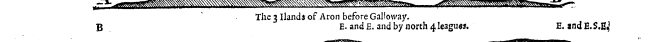
These 4 following figures belong one to the other, as the markes doe shew.





When as the middeſt of the Ilands of Aron (which lye before Galloway) is northeaſt 4 Dutch leagues from you, it sheweth it selfe thus: and that C. Kerry, or Sinbrandonhill, ſoutherly little Iland sheweth then low and flat.





The

The sixth demonstration,

Where in the coastes of Munster, betweene Blasques and Oldhead, and the south coast of Ireland, from Oldhead to Waterford, are set forth.

Skellocks. SEven or eight leagues to the southwards of the Blaskeyes lye three great Rockes called the Skellocks, the easternmost about a league, and the westermost two great leagues a seabeard the land, when you come from the southwards and see them first, they shew like sayles of ships. Betwixt the Skellockes and the Blaskeyes goeth in a great broad bay deepe into the land, Dinglebay called Dinglebay, with divers havens in it.

About a league and a half from the Sound of Blaskeys lieth a haven called Ventrie, a great league to the eastwardes off it another called Dingle, or Dingle Couch, it lyeth north and by The Crow west in at the west point of it lyeth a rocke, called the Crow, which is clean round about, so that men may saile round about it on both sides, within taking any hurt, at high water with spring tyde, it floweth even under water. This haven of Dingle and the Skellockes, lye northeast and by north, and southwest and by south distant eight leagues.

Begenny-haven. Northeast from the Skellockes, southeast from the Sound of Blaskeys, and south and by east from the Ventrie, lyeth a haven at the east end of the Iland Valentia, called Begenney, which lieth eastsoutheast in, you must give the east point off the Ilands a Birth off, because it is fowle, and lieth a good wayes off: there lyeth also a suncken rock on the Yland side, which you must take heed of when you are come within the entrey of the haven, you must goe east and by north unto the road, which is right against a red cliffe that lyeth on the south side.

The Skellockes and the Cape Dorsey lye northwest and southeast, seven or eight leagues a sunder, betwixt them both goeth in also a great broad Sounds, northeast, wherein lye many Ilands, haven and roads.

C. Dorsey C. Dorsey is an Iland within which men sayle and ryde under. For to goe in there from the southwardes, you must, give the east side a birth, that is, the side of the maine land which is fowle, and run in alongst by the side of the Iland, untill you be come within, anckor there.

Bull Cow and Calfe rockes. Without the Cape Dorsey lye three great rocks, the outermost or the westermost is called the Bull, the middlemost is called the Cow, and the other the Calfe, they are clean round about, so that men may sayl there through between them, without feare of any danger, there is nothing that can hurt but men may see it.

Mizan-head. About seven leagues eastsoutheast from C. Dorsey lieth the point Mizanhead, betwixt them both goeth in a great Bay or river deepe into the land (with divers havens and roades) called the Bantry.

Thre castles. A great league to the northwards of Mizanhead, lyeth a peynt, called the three Castlehead, upon it standeth three flat Towers, but men kan hardly see them Except they be neere the land. Also a great league more to the northwardes, Steepshead. lieth a small point, called Steepshead. Betwixt these two points goeth in a great broad Bay, called Dounams Bay, there is nothing to doe nor to fetch, but it is a fit place to save ships, and all over good anckor ground.

Beerhaven From Sheephead to Beerhaven, the course is north and by west, or somewhat westerly about two great leagues, it goeth in between an Iland on the east side, and the main land towards C. Dorsey on the west side, it is about a great musket shot broad, the forefayd Iland on the east side is called the Yland of Beer-haven and is about two leagues long. For to sayl in there you must keep the mid way, in the entry of the haven it is clean, without any fowle ground: after you be come in, there standeth on the larboard side a ruined castle, and a litle further are two litle rivers, close one by the other, between Road in Beerhaven these two litle rivers stand some Fisherhouses. Men may sayle into the forefayd litle rivers, they are deepe enough, but commonly men doe anckor before them, or by that forefayd ruined castle, or els somwhat further in, it is all over good anckoring, and cleane ground, except right against the forefayd little rivers, lye some rocks about the middle of the channell, which at high water are under, and at low water lye above water, these onely must beshunned, but men may goe on either side off them. Somewhat further in the Bay standeth another castle, called Oldcastle, from thence men may sayle alongst to the northwards off the Iland Beer haven, and come tou to the eastwardes into Bantry. The Sound on the north side off the Iland is large, broad and cleane, 13, 12, and tenne fathom deepe. The east poynt of the Yland is a sharpe point, and very fowle, there lyeth of a ledge of rocks, where off some lye under water, and some above water at low water, but the side off the maynes cleare and cleane. In this entry lye also two great rockes high above water, but clean round about, men may run through between these rocks, or to the southwards, betwixt them and the forefaid ledge of rockes, or also to the northwards alongst betwixt them and the mayne land, as well in comming in as in sayling out, there is no danger more then men may see.

From Beerhaven to the north point of the Iland Whiddy, The Whid lieth the Bantry eastnortheast and northeast and by east 6 or 7 dy. leagues: over against Beer-haven in the miedest in the fareway, it is deepe 40, 36, and 30 fathom, within the Iland, 15 and 16 fathom, but further in towards the Iland Whiddy, it is againe 20 and 25 fathom deepe: men may sayle round about the Iland Whiddy, (which is about a league long) but to the northwards it is best.

For to sayle in about to the northwards, or to the eastwardes, men may goe in close by the north or east point, but a litle within the point, lyeth a litle ledge of rockes, a little musket shot of from the shore, which at high water lyes under, but a halfe ebbe beginneth to come above water, that onely is there to be shunned, being passed that, you may anckor all over. About that forefayd point lye two small ilands, by the greater men may sayle alongst on both sides of it, either within it or without it, untill before a Gentlemans house which is white, upon the iland Whiddy, and anckor there against it in 3 or 4 or 5 fathom, so deepe or so should as men will, according as men desire to ride neere or far from the shore, it is there all over clean ground.

For to saile in to the southwards off Whiddy. He that will sayle into the south point of the Whiddy, had need be very well acquainted it is there to the southwardes between the Whidday and the maine land, at most placed fowle and stony. From the west side of the Whiddy, lye also some fowle ground and rocks, somewhat of the iland to seawards some above, and some under water.

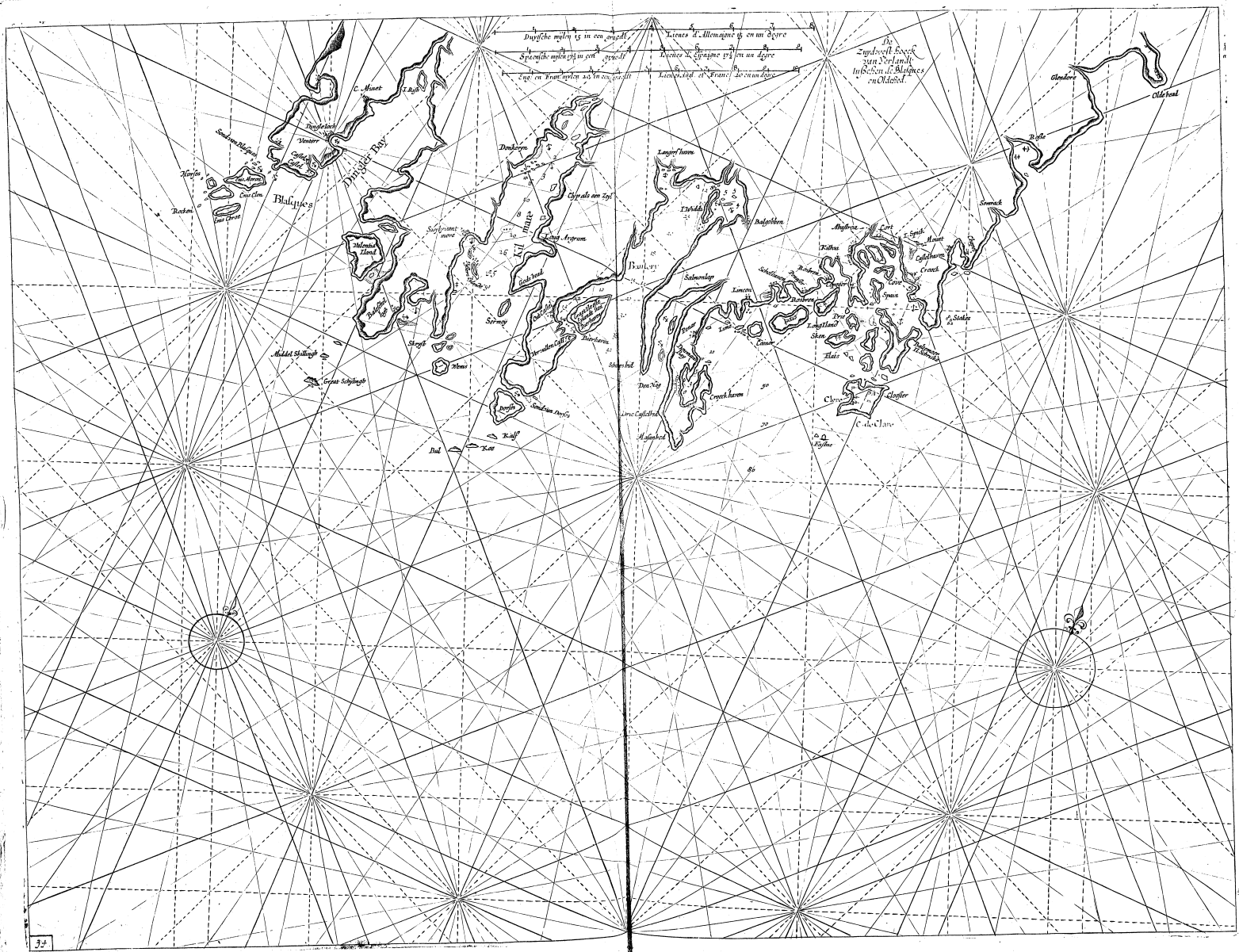
The Abby To the southwards of the Whiddy upon the maine Land, standeth a Friery or Abbey, called by the Irish the Abbey, right against it is the common road, & it is very good ground in 4, 5 or 6 fathom, according as you shall ride farre or neere to the shore, to the N. wardes lyeth a litle iland so low in the middest, that at a spring tide the sea floweth over, & divideth it in two.

A litle league to the eastwards of the Abbey lyeth a litle towne upon a little river called Balgobben, at high water men may goe up ther with ther boat, but at low water it falleth dry.

Langerf A great league from the east poynt of the Whiddy, westnorthwest, lyeth a haven called Longerf, when you shall sayle from the forefayd point towardes it, you shall meete right in the fareway, about halfe wayes over a great rocke, which men may be sayled about on both sides, but it is best on the off-side. The off-side is cleane and cleare, but on the inner-side lyeth some fowle ground. He that will sayle through on the inner-side, had need to be very well acquainted. The forefayd haven of Lang-erf lyeth N. N. W. Even within it in the entrance on the starboard side, lyeth some fowle ground, which at low water (the Spring tydes) may be seen drye, these must be shunned, or els it is there within all over good anckoring & good ground, there is no more danger, but men may see it.

When a man is neer the Iland Whiddy, about middest of the Bay, he cannot see the land without the iland Beer-haven on the west side of the Bay, because it falleth away so alongst to the westwardes.

From Mizanhead unto C. Cleare, the course is east and by south distant seven leagues. About three leagues within or to the eastwards of Mizanhead, Northwest from C. Cleare, lyeth a haven called Croock-haven. He that commeth Crooke-haven from the east, and is bound in there, must runne alongst by C. Cleare, up about it to the northwards, so farre untill hee may see through into sea to the northwards of the iland off C. Cleare, as through a hole, and set then his course westnorthwest, keeping that forefayd hole (to the northwards off C. Cleare) open, then hee shall fall right with Crooks haven,


Duytsche mylen 15 in een graedt
Lieues d'Allemaigne 15 en un degre
Spaensche mylen 17½ in een graedt
Lieues d'Espaigne 17½ en un degre
Engelsche Vroet mylen 20 in een graedt
Lieues d'Angl. et Franc. 20 en un degre
De Zuydtwest Koeck van Yerlandt tusschen de Blaskes en Oldehed
C. Mineet
I. Rost
Dingle Bay
Blaskes
Horsies
Bosken
Middel Skellingh
Great Skellingh
Kil mare
Bantry
Baltimore
Castle Clare
Glendore
Olde head
Bysse
Smerwick
Limerick
Corck
Spike
Kinsale
Cove
Crook
Oyster Haven
Sandtbanck
Ven
Dunkerron
Langerf haven
Salmonlap
Lincen
Bantry
Corpeck haven
Don Nay
Sandtbanck
Bul
Kat
Kalf
Middel Skellingh
Great Skellingh
Sherkin
Clare
Clogher
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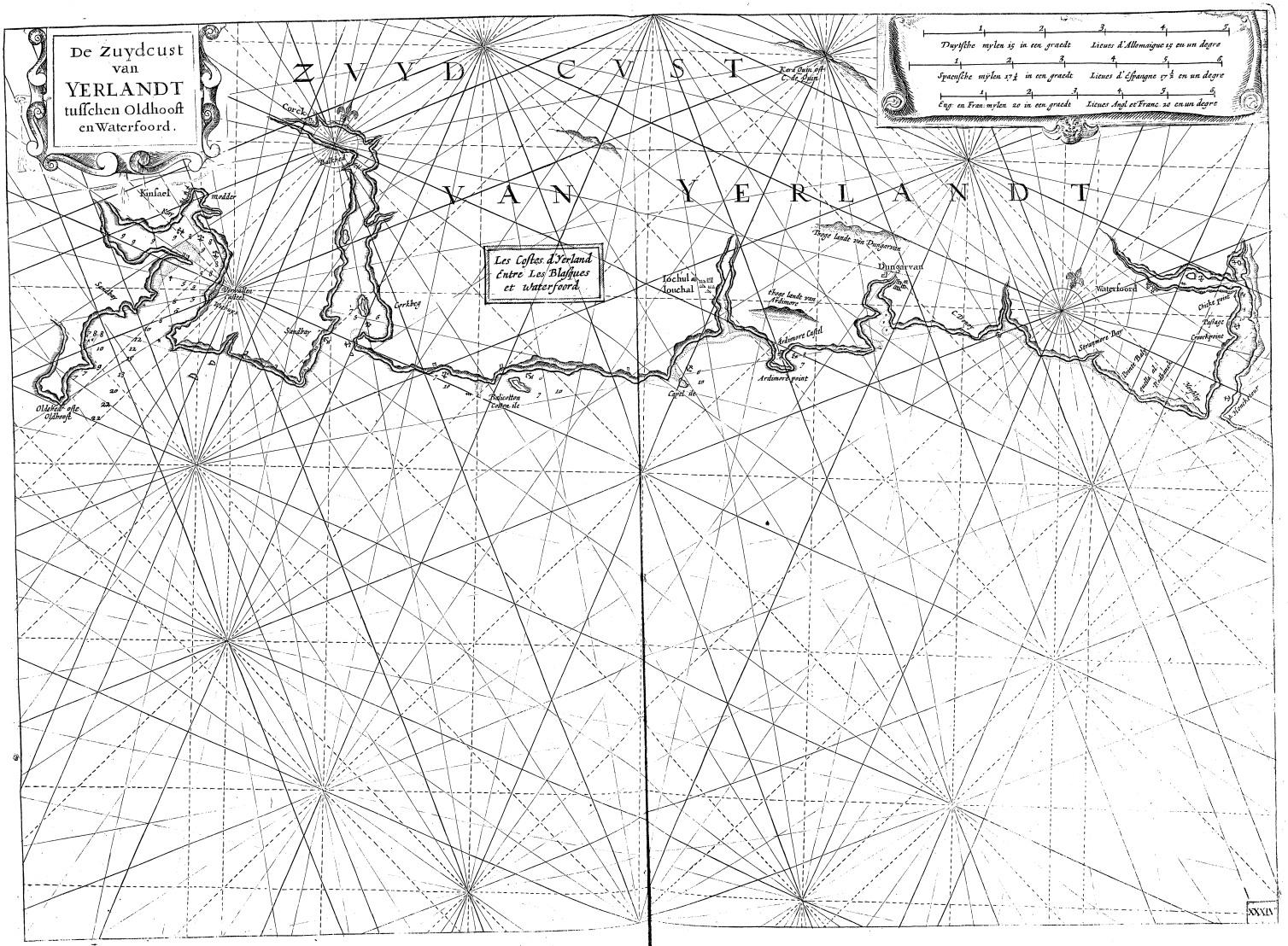

De Zuydcust van YERLANDT tusschen Oldhoost en Waterfoord.
ZVYD CVST VAN YERLANDT
Les Costes d'Yerland Entre Les Blasques et waterfoord.
Duytsche mylen 15 in een graedt
Lieues d'Allemaigne 15 en un degre
Spaensche mylen 17½ in een graedt
Lieues d'Espagne 17½ en un degre
Eng. en Fran. mylen 20 in een graedt
Lieues Angl. et Franc. 20 en un degre
Corck
Kinsael
Moddor
Oldkeet alias Oldhoost
Sandbay
Corkbeg
Tochul alias Touchal
Thoge lande van Dungarvan
Dungarvan
Thoge lande van Ardmore
Ardmore Castel
Ardmore point
Cayet Ile.
Waterfoord
C. Pryse
Strangmore Bay
Chiefe Towne
Passage
Cowkepoint
Hooge Bluff
Hoogte d. Tafelberg
Hoogte
Tafelberg
XXXIV

haven which lieth in weſtſouthweſt. And there he may anchor before the litle town in three fathom, and two fathom and a halfe. It was wont heretofore to be deeper there, but it is ſpoiled moſt by caſting of ballaſt, men may alſo anckor further out then before the towne, there it is deeper, and all over cleane ground.

Faſney-rock. Two little leagues weſtand by ſouth from C. Cleare, lieth a high ſteepe rock alone in the ſea, called Faſtney, which ſhewet at firſt ſight like unto a fayle, north and by weſt 3, or 4 leagues, from this rock lieth a haven called Schoolhaven.

Schoolhaven. A little to the eaſtwardes off the Iland off Cape Cleare lieth

Ile Sherck. another Iland, called Ile Sherck. To the eaſtwards off it, betwixt that Iland & the maine land goeth in a haven called Baltemoore haven: It is ſomewhat narrow at the mouth of the haven, but within the mouth off the haven it is large and broad, there may you anckor on both ſides wheare you will, and lye landlockt for all windes. On the weſt ſide within the haven ſtandeth a Friery, cloſe before it you may anckor in five and ſixe fathom; in the middeſt off the haven, it is ſixe and ſeven fathom deepe. A little to the northwards of the forefayd Friery ſtandeth a caſtle upon a point. In the mouth of the haven lieth a ſuncken rock, neereſt to the eaſt ſide, and within in the middeſt of the haven lieth a rocke, which at high water lieth under, and at low water lieth above water, there is nothings els that can hurt. A little to the eaſtwards without the haven, lieth another rock 6 or 7 ſhipps lenghts from the ſhore.

Baltemoore haven.

For to ſaile through within the Ilands off C. Cleare. To the northwards of the Iland of the Ile Sherke, men may goe to the weſtwards through betwixt Ile Sherke, and the Iland Spain, and come out againe into ſea by C. Cleare, but it is to bee done onely with ſmall ſhipping, and yet not without danger. Betwixt Ile Sherke and Spain, is at halfe flood not more then twelve or thirteene foote water. At divers other places betwixt theſe Ilands, it is rocky and ſhowld, ſo that it is not good to goe through within, except men be very well acquainted, and yet at high water and ſpring tydes.

Stagges. A litle league to the eaſtwards of Baltemoore lye the Stagges, an Engliſh mile from the ſhore, they are five or ſixe high ſteepe rocks. When men come from the eaſtwards alongſt by the ſhore, and get firſt ſight of them, they are like unto ſome ſpirie towers together, men may ſaile through betwixt them and the maine land, it is there large and broad enough.

Caſtle-haven. Northeaſt about two leagues from the forefayd Stagges, lieth Caſtle-haven without it on the eaſt ſide lieth a litle Iland, you muſt leave it on ſtarboard ſide in ſayling in, and another little flat Iland on the ſtarboard ſide, that lieth ſo cloſe to the land, that at low water men may goe dry foot over from it to the maine land. Within the haven ſtandeth a little Chappell, when you will ſayle in there, you muſt runne in right with it, cloſe alongſt by the foreſaid little Iland on the eaſt ſide: when you are come in, thwart of the Chappell, you ſhall ſee a Caſtle on the weſt ſide, over againſt that Caſtle you may anckor in 12 fathom.

From Caſtle-haven unto the Oldhead, the coaſt lieth moſt E. N. E. and W. S. weſt, but C. Cleare and the Oldheat lye N. E. and by eaſt, and S. W. and by weſt diſtant 13 or 14 leag.

Kedonetedo. About halfe wayes betwixt Caſtle-haven and the Old-head lieth a high point, called by the Iriſh, Kedonetedo, there by

Clandore. it on the weſt ſide is a good haven, called Clandore: For too ſayle in there, you muſt run in alongſt cloſe aboard by that fore ſaid high land on the eaſt ſide, for too ſhun a rane of rocks that lieth on the weſt ſide, and lieth off ſomwhat towards on the eaſt ſide, when you are come in, jou may anckor before a Caſtle in five, or ſeven fathom.

The Oldhead or C. de Velho, is a point that lieth out farre without the other land, the outermoſt ſouth end of it is very high & ſteepe, when jou are come alongſt the ſhore from the eaſt or from the weſt, and ſee it firſt, it ſeemeth to bee an Iland, upon the top off it ſtandeth a ruined caſtle with three Towers, whereof the middlemoſt is the higheſt. On both ſides off this outlying poynt men may ankor ſo deepe or ſhowld as they wil.

Kinſale. About two leagues north and by eaſt from that point, lieth the haven of Kinſale, lying in northnortheaſt, jou may ſaile in there, keeping the middle off the channell, there is no danger, neither without not in the harbours mouth, but one ſuncken rock cloſe by the eaſt poynt. When jou come in from the Oldhead, or from the ſouthwards, and jou keep an old ruined caſtle (that ſtandeth within the haven on the eaſt ſide) even without the Innermoſt eaſt point off the haven, then you ſhall not come neere the rocke to take any hurt off it. About a great halfe league to the eaſtwards or the havens mouth, lye two great black rockes, the one ſomewhat further from the ſhore then the other. When jou come from the eaſtwards, and you will goe in cloſe about the eaſt point, and jou keepe the ſouthermoſt (that is the greateſt) right on the eaſt poynt, them jou ſhall goe through betwixt the ſuncken rock and the point: but if you keepe the northermoſt (or the ſmalleſt) a little without the foreſaid point, ſo long untill you have brought the foreſayd old ruined Caſtle, without the innermoſt point, then you ſhall goe alongſt without it, and then in the midſt of the channell alongſt by the eaſter ſhore. A little paſt that foreſaid old ruined Caſtle, ſtandeth a Caſtle on the weſt ſide upon a poynt, there lieth off a ſhowld, which muſt beſhunned, and therefore you muſt keep cloſe alongſt by the eaſter ſhore, untill you be gotten about the ſhowld of the Caſtle, and then weſtwardes up unto the Kay of Kinſale, there you may anckor in eight or nine fathom, and lye landlockt for al windes. The towne Kinſale lieth a little to the northwardes in a bay, where it is oaſie ſoft ground, part whereof falleth dry at low water.

Foure leagues too the eaſtwardes off Kinſale, lieth the haven Corck, betwixt both abouth a league too the weſtwardes of Corck, you ſhall ſee (ſayling alongſt the coaſt) two ſteepe hommockes like Towers in the land, not farre one from the other: theſe are notable marcks for to know the coaſt. When you are thwart of the eaſtermoſt, you may ſee the havens mouth of Corck, that lieth in northnortheaſt, within it is wide and broad, and goeth up into the land with a broad river. On the eaſt ſide, ſomewhat within is a point, where lieth off a ledge off rocke, which muſt be ſhunned. There over againſt on the weſt ſide, ſomewhat farre, in lieth another point with an old ruined caſtle, there alſo lieth off aſhowld; to the northwardes if it, men goe about to Corck. Within that Caſtle lieth a litle tyde haven in a ſandy Bay. Within the haven lieth an Iland, where men doe fayle round about, and at the ſouth ſide thereof may ride. It is in this Haven of Corck at low water, ſeven, eight or ten fathom deepe. Corck.

A little without the eaſt poynt ſtandeth an old ruined Caſtle upon the low land, and ſomewhat further eaſt ward, a ſquare Tower in a valley. A league to the eaſtwards off the havens mouth ſtandeth a Tower upon a high poynt, cloſe to the water ſide with ten or twelve thatch houſes by it Moreover, a league further eaſt, by a ſmoot point, lieth a long rock growen about with greene, upon the eaſt ſide off that poynt ſtandeth a flat tower. Further, it is to the eaſtwards all lowe land, unto the point of Iochul.

Foure leagues to the eaſtwards of Corck-haven lieth an Iland, called Ballecotton, within it men may ride for wefterly & ſouthernly windes, in foure, five, or ſix fathom. Corck and Iochull lye E. N. E. and weſt ſouthweſt, diſtant 7 or 8 leagues. Ballecotton ile.

The haven of Iochul is a broad haven, where men muſt goe in at high water, by the eaſt lant it lieth in northw. and northweſt and by north. The weſt ſide is a ſandy ſtrand alongſt to the downe. Iochull.

About a league ſouth and by weſt from the havens mouth of Iochull, lieth a little Ilands called Chappell: under it on the eaſt ſide is a good road. He that commeth before Iochul at a low water, may goe under that foreſayd Iland to ride there, and ſtay for the laſt quartier flood, then there is foure fathom water upon the banck. At the weſt point of the Havens mouth lieth a rocke within it. About halfe wayes to the towne ſtandeth a friery, before it men may ride they may alſo edge over to the eaſt land, and then run up the river. Within it is three, foure and five fathom deep. From the eaſt ſide lieth a rane of rockes, at leaſt halfe wayes over in the havens mouth, a little without the rocks it is at low water no more then five or ſixe foot water, but a high water it is deepe enough. chappelile

Foure leagues to the eaſtwards of Iochull, lieth Dongarvan haven, betwixt bot lyeth an out point, a little to the eaſtwardes of it ſtandeth a high blacke Tower, called Ardimore, which may bee ſeen wel 4 leagues at ſea, within is a bay, which is a good road for weſterly windes in ſeven or eight fathom. Ardimore.

Dongarvan is narrow tyde-haven, the mouth off the haven is full of Rockes, and at low water it falleth drye, men muſt goe in there at high water, and runne in through betwixt the rocks, it lyeth in northnorthweſt, within it is deepe enough. The towne Dongarvan lieth upon the weſt ſide of the haven. From Dongarvan to Waterford are eight leagues. Dongarvan

Within Dongarvan, northnorthweſt landwards in, lieth the mountaine of Sleges, which men doe cal the high mountaine of Dongarvan, or Cape de Quin, or Caray Quin, it ſheweth it ſelve with three exceding high hommockes, farre above all other lands, thereabouts men may ſee it at ſea alongſt a great part of the ſouth coaſt of Ireland. C. quin.

When you ſhall have that mountaine northnorthweſt from you, and ſayle in right with it, you ſhall fall right with Dongarvan.

When you shall have it north off you, and saile in right with it, then you shall fall with Iochul; being northnortheaſt, then you shall fall with Corck, but when it shall be N. W. and so run in, you shall fall with waterford.

Of the Tydes and Courses of the streames.

In all theſe foreſayd Havens maketh high water an E.N.E. and w.ſouthweſt moone, or a point later, according as they lye deepe within the land.

But a ſeaboard the coaſt in the offing, a northeaſt and ſouthweſt moone.

At the Mizanhead, c. Clare, and the coaſt to the eaſtwards, a w. S. w. and E. N. E. moon maketh high water, within the havens and in a draught, a point later, to wit, eaſt and by north and weſt and by ſouth. But in the chanuell a ſeaboard the land, a north eaſt and ſouthweſt moone.

Without c. Cleare by the land, the flood falleth away E. and the ebbe weſt. but to the eaſtwards of c. Clare e.n.e. and weſtſouthweſt.

On theſe ſouth coaſt of Ireland an eaſt and n. e. and w. S. w. moone maketh high water, within the Havens a point later, to wit, an eaſt and by north, and weſt and weſt and by ſouth moone: but in the offing a ſeaboard a ſouthweſt and northeaſt moone.

Berwixt c. Cleare, along the coaſt before Waterford, into the point of Carnaroort, the flood ſaller alongſt the coaſt eaſtnortheaſt and the ebbe weſtſouthweſt.

Of the Depth.

Betwixt c, Cleare and the Dorſeys, men may ſee the land in 18 and 60 fathom.

From c. Cleare to the eaſtwards unto Waterford, men may ſee the land in 44 fathom. The moſt part of theſe coaſt of Ireland, men may ſee it in 35 and 40 fathom. In 35 fathom you shal not be farre from the land. Wherefore come no neerer Ireland by night then in 40 fathom.

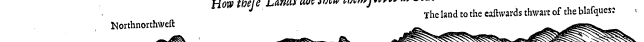
Courſes and diſtances.

From the Sound of blaskeys unto the Skellocke, the courſe is ſouth		7 leagues
From Dinglehaven unto the Skellockes, ſouthweſt and by ſouth		8 leagues
From the Skellockes unto the Dorſeys, ſoutheaſt	——	7 or 8 leagues
From the Dorſeys to Mizanhead eaſtſoutheaſt	——	7 or 8 leagues
From Mizanhead to Sheepeshead north	——	two great leagues
From Sheepeshead to beerhaven, the courſe is north and by weſt, ſomewhat weſterly, ſcarce	——	2 leagues
From Mizanhead to beerhaven north and by weſt	——	5 leagues
From beerhaven to the Iland Whiddy, the courſe is c. n. e. and by eaſt	——	northeaſt and 7 or 8 leagues
From the Dorſeys to Silly ſoutheaſt and by eaſt	——	56 leagues
From the Dorſeys to cape de Finiſterre is the courſe ſouth and by eaſt and ſouth	——	273 leagues
From Mizanhead to cape Cleare eaſt and by ſouth diſtant,		7 leagues
From cape Cleare to Krookhaven north weſt	——	6 leagues
From cape Cleare to Vedo or Oldhead eaſtnortheaſt	——	33 leagues
From cape Cleare to the lands end of England ſoutheaſt and by eaſt		33 leagues
From cape Cleare to Silly ſoutheaſt	——	47 leagues
From cape Cleare to cape de Finiſterre ſouth	——	173 leagues
From Oldhead, or cape de Velho, to the haven of Kinſale, is the courſe north and by eaſt	——	1 leagues
From Oldhead, or cape de Velho to Corck northeaſt and by eaſt		5 leagues
From Corck to Waterford, the coaſt lyeth moſt eaſtnortheaſt		
From cape de Velho to the landes end of England ſoutheaſt		45 leagues

Heights.

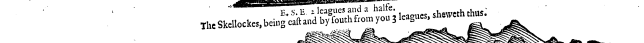
C. Cleare lyeth in	——	51 degrees, 12 minutes
C. de Velho, or Oldhead lyeth	——	51 degrees, 28 minutes

How theſe Lands doe shew themſelves at Sea.



Thus shew the Skellockes with the land to the eaſtwards, or to the northwards of them, when you are ſomewhat to the northwards of them, and sayle alongſt by them.

The Skellockes, being eaſt and by ſouth from you 3 leagues, sheweth thus.

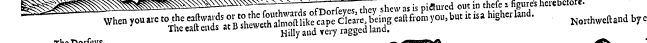


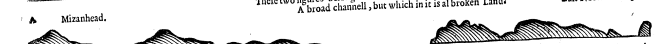
Theſe Ilands lye to the ſouthwards and to the eaſtwards of the Skellockes, the land from thence eaſtwards towards the Dorſeyes, is all high broken and very ragged land.

The Iland lyeth betwixt the Skellockes, and the Dorſeyes cloſe by the land.

Thus shew the Dorſeyes, with the rocks, Bull, Kow, and Kalfe, which lye without them, they are to the ſouthwards of you.

This and the figure following belong at the A A one to the other.





The forme of C. Cleare with the rock Faſtney.

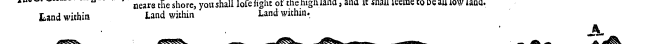
This belongeth to the figure going before the AA, one to the other, is the land to the eaſtwards of Baltemoore.

Rock a little to the eaſtwards of baltemore.

Thus sheweth C. Cleare, when it is north from you 5 leagues, and there it is 58 fathom deepe.

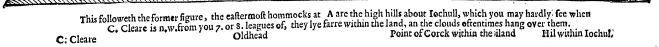
The C. Cleare being N. w. 7. or 8 leagues of from you, sheweth thus. If you then beare in north, you shall fall right with Oldhead, and when you come neare the shore, you shall loſe ſight of the high land, and it shall ſeeme to be all low land.

Land within Land within Land within.

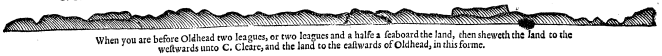


This followeth the former figure, the eaſtermoſt hommocks at A are the high hills about Iochull, which you may hardly ſee when C. Cleare is n.w. from you 7. or 8. leagues off, they lye farre within the land, an the clouds oftentimes hang over them.

C: Cleare Oldhead Point of Corck within the iland Hil within Iochul.



When you are before Oldhead two leagues, or two leagues and a halfe a ſeaboard the land, then sheweth the land to the weſtwards unto C. Cleare, and the land to the eaſtwards of Oldhead, in this forme.



Thus sheweth Oldhead when it is w. ſ. w. a halfe league from you, then may you ſee the haven of Kinſale open,

When Oldhead is weſt two leagues from you, it sheweth in this forme.

When the point of Roſſe is weſt and by north from you, it sheweth thus,

The land a little to the eaſtwards of Kinſale sheweth thus.

The land to the eaſtwards of Corck towards Iochull, sheweth in this forme.

Old ruined houſes.

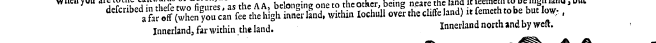
The Rock betwixt Iochul and corck.

When you are to the eaſtwards of Corck, not far from the land, and that the harbours mouth doth begin to open, then sheweth the land as is deſcribed in theſe two figures, as the AA, belonging one to the other, being neare the land it ſeemeth to be high land, but a far off (when you can ſee the high inner land, within Iochull over the cliffe land) it ſemeth to be but low-

Innerland, far within the land. Innerland north and by weſt.

Mount of Iochull.

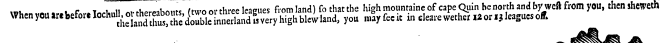
Theſe two figures belong at the B B, one to the other, Dongarvan.



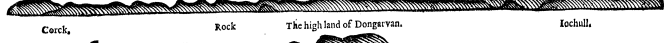
When you are before Iochull, or thereabouts, (two or three leagues from land) ſo that the high mountaine of cape Quin be north and by weſt from you, then sheweth the land thus, the double innerland and very high blew land, you may ſee it in cleare wether 22 or 23 leagues off.

Theſe two figures belong at the C C one to the other, and is the forme of the land betwixt Corck and Iochull.

Northnortheaſt



The high land of Dongarvan sheweth thus, being northnortheaſt from you.



Thus sheweth the high land of Dongarvan, when the weſtermoſt end of it is northweſt from you,

The First part of the Fiere Columne.

THE THIRD BOOKE,

Of the

WESTERN NAVIGATION

Containg

The description off France, Biscay, Galliassi, Portugaell, and Algarve, from Heyssant to the Straights off Gibraltar.

The first demonstration,

Wherein are shewed the coasts off France from Heyssant to the River off Bordeaux.

FRom the Iland Ile de Bas unto the Fourne, (the outermost or westermost end of the maine land of Britaigne) the course is west southwest, and west and by sout thir teene leagues. About halfe wayes betwixt them both lyeth Obbevrack, or Abberwrack.

Abberwrack. About a league northwest without the rocks of Obbevracke or Abberwracke lieth a rane of Rocks under water. They that by night wil faile or turne to windwards from the Fourne The Fourn or towards the Fourn, let them not come thereabouts nearer the land then in 45 fathom.

A league to the eastwards of the Fourne, and all alongst the coast even unto the Fourne, lye many long black ragged rocks, at many places to looke to like Villages, these are called the Ovens, within them on the maine land which is not very high, men shall see (fayling alongst by them) many white sand-bayes, and here and there some little houses, whereby the forefayd land there about is very good to bee knowne.

Ushant. The Fourne and Ushand lye westsouthwest and eastnortheast distant two great leagues. Ushant theweth it selfe at least the sout-end low, and at the north-end going up sloping, upon the midst of it standeth a little flat Tower, by which markes it is good to beknowne.

For to sayle through within Ushant, the course from the Fourne to S. Matthews point is southsoutheast foure leagues. At the point of the Fourne lye two rowers of little Rockes, and to the southwards of them alongst the Coast lye three other heaps of rocks, each of them about an English mile one from the other: runne alongst within two Cables lengths by the forefayd rockes at the poynt, which is much nearer the east side, or the maine land, then Ushant, for to shun the nor-Hagels. ther Haghels, which doe lye betwixt Ushant and the forefayd rockes or Ovens, or else if you keepe S. Matthewes Abbey in the low valley to the eastwards of Conoort, and sayle so right with it, then you run through neerest the east side, and in the middest of the channeel betwixt the foule ground and the Blanckbay Rockes, untill you come thwart of Blanck-bay, or neare Conquets-oort, there standeth a mill upon the high land alone, when it is east from you, then the fourther Hagels lie west and by north from you, and the norther Haghels northwest and by west: there is also a high flat peece of land, a little to the eastwards of the Abbey of S. Matthewes, the top of it being even and plaine, like unto a long plaine house, when that commeth even without the poynt Conquets oort, and these forefayd mill be east and by south, and eastsoutheast from you, then lie the Norther-Hagels. north Haghels west and by south from you, so that when the forefayd mill is east thwart from you, then are also the Haghels west twhart from you. When Halman or Hayman hill Halman. (that is a high rock lying at the east end of Ushant) commeth over the N.W. end of the northermost Mollens, by the French called Chemines, then are you also thwart of the Haghels.

Hee that must turne to windwards from the Fourne towards Conquet, or S. Matthews point, let him make use of these Conquets-oort. markes: In the poynt of Conquet haven, or Conquets-oort, are two valleys, the one is great, that is the westermost, and one little, that is the eastermost, in manner as is here portrayed.

S. Matthews Cloyster. Conquets oort.

When you runne over to the eastwards towards the land, and that the Abbey of S. Matthewes commeth a Capstone Barres length to the eastwards off the smallest valley, according as is shewed in this figure, then it is time to cast about: and when you runne over to the westwards towards Ushant, and that the forefaid Abbey of S. Matthewes commeth a little without the poynt off Conquet Haven, you must also cast about, for when the forefaid Abbey commeth two shippes lengths without the forefaid point then are you close by the Haghels. The Norther and the Souther Haghels lye about a shot of a cast peece distant one from the other.

Two or three Cables lengths thwart from the point off Conquet haven, or Conquets-oort to seawards, lieth a suncken rock, which with a spring tyde commeth above water, called the Vintner, by de French le Bell. For to avoid it The Vintcomming from the northwards, or from the Fourne, and being ner. come from the forefaid markes (of S. Matthews Abbey in the great valley of Conquets oort) unto close by Conquets-oort, then runne close about by it, alongst within a Cables length of the poynt, or keepe the Abbey of S. Matthewes even without the poynt of Conquet-oort, and so close about it, within a cables length as before is said, and then you shall leave the Vintmer a Cables length or two on the starboard side of you, and can take no hurt of it.

When the little Church upon the point off Conquets-oort is east from you then is the Vintmer west right thwart from you, or else when that the Souther-houses off Conquet, beginne to come without, or to the point off Conquet, then you have also the Vintner, upon your side, west and west and by south from you, a little shoot off a cast peece.

If you saile into Conquet-haven, then runne about the Conquet-point within a cables length, as is before said, untill you see haven. the haven open, then you come against the Fenesters, which are rockes that lie off about a Cables lenght from the East- Fenestiers. land of Conquet-haven under water. For to avoid them, run alongst by the norther shoare, untill you come within the Haven. betwixt the Fenestiers and the blanck Moines (that are Blanck-rockes by Saint Matthewes poynt) is a good Road under the moines. Abbey of S. Matthewes, as well for them that are bound to the northwards as to the southwards. If you wil goe into this road comming from Conquets-oort, then run right with the blanck Moines, untill that the Abbey of Saint Matthewes be eastsoutheast from you, sayle then towards it untill yon come before the Abbey, and anckor there in 6 or 7 fathom.

About a league to the eastwards of S. Matthewes point? towards Breft, lieth a suncken rock, about halfe a shot of a east peece from the north shore. If you will sayle into Breft water, then goe from S. Matthewes point away east and by south, and eastsoutheast, and keepe the north-end off the Southermost Mollens, without S. Matthewes point, so long, untill that the mill upon the north-land come to the northwards of the trees, then you saile alongst to the southwards of the forefaid rock, and so doing, you can take no hurt off it; but if you bring the south end of the Mollens neare or to S. Matthewes point, you shall not saile to saile upon it.

For to saile to the Northwards of the forefaid Rocke, you must runne from Saint Matthewes point alongst by the North-land, and keepe the southermost Mollens hidden behinde te great Rocke that lieth off from Saint Matthews point, and saile then right with the west point of Batrams bay, untill that the forefaid mill standing upon the North-land, commeth to bee northwest and by north from you, and the trees standeth northnorthwest from you, then shall you be past the forefaid Rocke; but to runne alongst to the southwards of it, is best and broadest. For to sayle forth alongst

The second part

THE THIRD BOOK

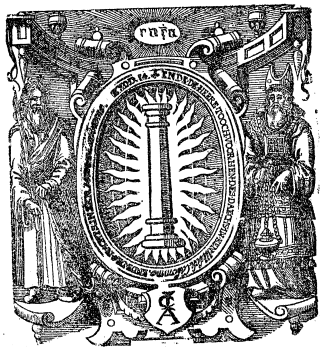
OF THE

FIERIE-SEA-COLVMNE,

WHEREIN

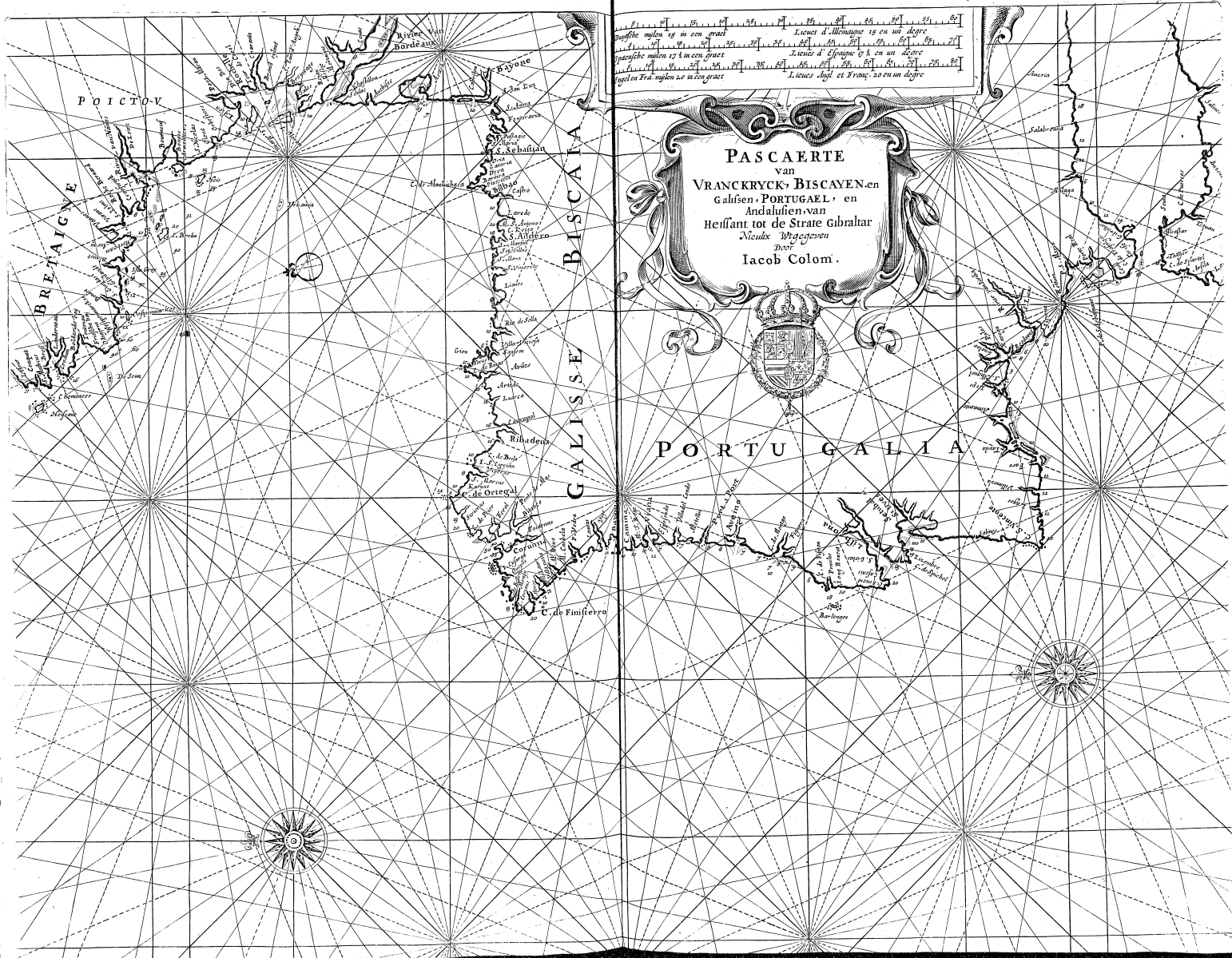
Is contained the Description, of the Seacoasts, of France, Galissia, Portugal, and Spaine, from Heyssant, to the Straites of Gibraltar: and with all the Flemmish and Cannary Ilands.

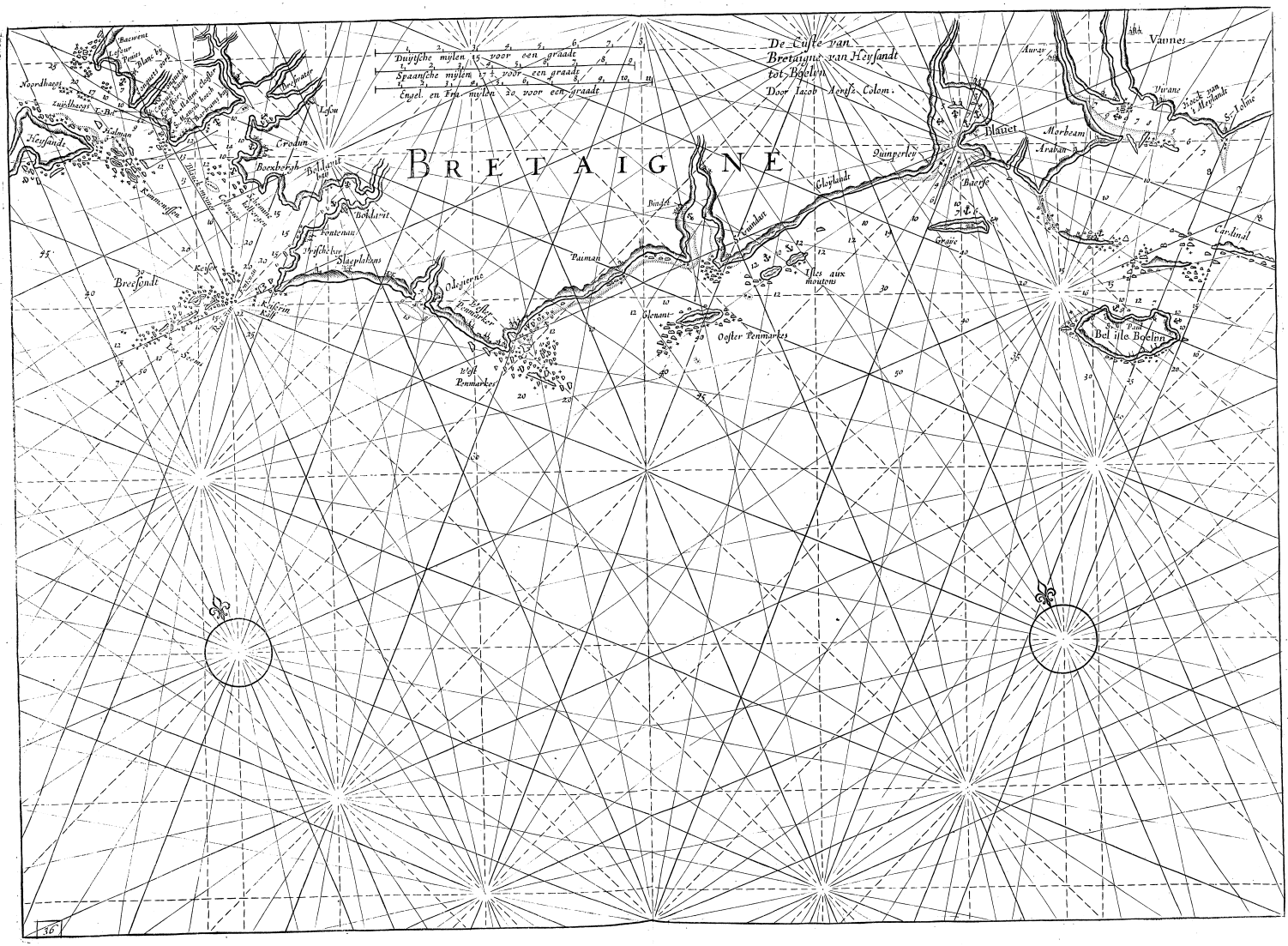
VVith priviledge of the High and Mighty Lords, the States Generall, for twelve yeares.



Printed at Amsterdam,

By Iacob Columne, on the water, in the Fierie Columne,


PASCAERTE
van
VRANCKRYCK, BISCAYEN, en
Galissen, PORTUGAEL, en
Andalusien, van
Heussant tot de Straete Gibraltar
Nieulix Wtgegeven
Door
Iacob Colom.
POICTOV
BRETAIGNE
GALISSE
BISCAIA
PORTU GALIA
Rivier van Bordeaux
Bayonne
S. Sebastian
C. de Finisterre
Ribadeus
Corunna
Lisbona
Setuval
Salabrecta
Almeria
Malaga
Gibraltar
Tangier
Ceuta
Tetuan
Arzilla
Larache
Salle
Mamora
Azores
Barlingen


De Custe van
Bretaigne van Heysandt
tot Boelon
Door Iacob Aertsz Colom.
Duytsche mylen 15 voor een graadt
Spaansche mylen 17 voor een graadt
Engel. en Fra. mylen 20 voor een graadt
BRETAIGNE
Heysandt
Breesandt
Croisin
Loscu
Boecberch
Bat Haven
Bat Haven bay
Bockarit
Fontenau
Slaeplatons
Keiser
Keiserin Kill
Odeyerne
Oosser Penmarker
Puman
Penmarker
Penmarker Kill
Bonsse
Goyslandt
Quinperley
Blanc
Oosser Penmarkes
Isles aux moutons
Graue
Plauet
Merbeam
Arabar
Baesse
Aurai
Vannes
Yvrane
Riuier van Heysandt
S. Iolme
Cardinal
Bel isle Boelon

longst to Creft (being past the forefaid rock) you must run forth within two cables lengths alongst by the north shoare. A little within the east point off Cordon, or Claesdownes, lieth a raue off Rockes, about the middest of the channell in the mouth of Breft water, which at low water lie above water, and at high water are under water, called the Baginne, you may runne alongst on both sides off it, but to the northwards off it, is best, when the south point of Brest-water commeth over the point off Crodan, then are you thwart of the forefaid Bagyne, which lieth about two cables lengths from the north shoare, runne alongst to the northwards of it: When the Breft commeth without the point, faile then so right to it, you must anckor there with an anckor to seawards in eight or nine fathom, and with a cable a shoare fast on a tree: When you come within the Bagyne, you may edge up to the eastwards, or to the southwards before the river of Landerneau or Lesou, and anckor there under the south-land, in ten, twelve, or thirteene fathom, before the little towne old Croidan. Breft-water, or the river of Landerneau, lieth in most eastnortheast, and it is Pilots water, bee that is bound in there, may take a Pilot to bring him in where hee desireth to bee. It floweth there with an ordinary tyde, three fathom up and downe, southwest and by west, and northeast and by east Moone maketh there full Sea.

Baginne.

Lesou.

If you come to anckor within Breft, you must pay for anckoringe ten soubs, & for it you shall get a ticket off freedome. If it should happen that you should loose your shippe upon Britaigne, you might there with challenge your goods, else they are unfree.

Battrams bay lieth about two leagues to the eastwards off S. Matthewes point, a little league past the forefaid suncken rock, there is good anckoring for a north, and northeast wind in 10 and 11 fathom.

Battrams-bay.

Over against Battrams bay lieth Croidan or Claesdownes from S. Matthewes point, southeast distant about 3 leagues, it is a great bay. For to faile from S. Matthews point to Croidan, you must keepe the southermost Mullens even without the black Moines (that are the Rockes without S. Matthewes point) and go away east and by south, and eastsoutheast untill you come before the bay, and may see open into it, then you shall see a Chappell, or little Church stand upon a chindle, run in right with it, and anckor thereabouts, in 6, 7, 8, 9, or 10 fathom, there is the road.

Croidan.

The Mullens are the rockes which lie there to the southwards of Ushant, and to the westwards from Saint Matthews point. Betwixt them and Ushant lieth a channell northeast and southwest through, which is indifferent large and broad, and deep enough, there remaineth at low water 6, and 7, fathom water. Hee that commeth from the northwards, and can not faile a weather off Ushant and the Mullens, by reason off the flood may run through here, or he that commeth out of the Sea, and with northerley winds, can not faile a weather off Ushant, may with a flood run through heere, and so further his voiage, when men runne through here, either in or out, and keep the middle of the channell betwixt both lands they can take no hurt.

Mullens.

From S. Matthews point to the race off Fontenay, or the Keiser and Lavender, the course is south and by east, five leagues, betwixt them both lie divers rocks, where off men must take good heed, as the Hen with the Chickens, the Collier, the Falconers, Scheminckelborrowes and other more. The Hen with the Chickens, and the middelmost Falconer or Foukenisse, lie from S. Mathewes point southeast and by east distant a league and a halfe, but the Collier lieth from S. Mathewes point southsoutheast also a league and a halfe.

Heane chickens.

The Falconers, or Foukeneffen, lie from the west point of Croidan about westsouthwest an English mile. The innermost or southermost Falconer lieth from the northermost southsoutheast about a halfe league, or two shots off a cast peece, and from Croidan southwest and by south, and is covered at high water. Northnortheast a cables length from it, liet another suncken Rocke, which at low water may even be seene. To the westwards of the northermost Falconer lieth also suncken Rock which at low water may even be seene.

Falconers.

The foure innermost Falconers.

The Hen lieth from the Falcones westsouthwest about two cables lengths, or a shot off a cast peece, it is a round sharpe rocke, it is round about it deepe and cleane, in 6 and 7 fathom. The Chickens are two sharpe little rockes, which at low water may even be seene, and lie about the shot off a Base northnorthwest from the Hen, and west from the northermost Falconer.

The Hen chickens.

Scheminckelborroughes.

The Scheminckelbroughts lie to the southwards off the Falconers, men may run through betwixt them in ten fathom, to the point of Croidan, there is good road and ankor ground.

If you will saile from S. Matthewes point to the Race of Fontenay, you must goe away south and by east, and bring the mill off Fenestiers, which standeth upon the east point of Conquet-haven, over the poynt off Saint Matthewes, a little to the westwards off the Abbey, and keepe them so standing so long as you can see them, and you shall not come to neare the forefaid Rockes, to take any hurt off them. When as them you come to the Keyser and Keyserinne, first give the Keyser a birth, because off some suncken Rockes whichlye off from the east side of it under water. From the southwest side of the Lavender runneth off a foule ledge Rockes, called the Calfe, there the tyde falleth very strong over it, with very great rippeling. This Channel off the Race of Fontenay, lieth through betwixt the Keyser and Lavender southsouthwest and northnortheast. He that will saile through here, must be very careful to cast his tides wel, for it runneth most thwart over this Race, so that with a southwest wind, and an outfall or ebb, and also with calmes, it is very dangerous to come into this Race.

Keyser Lavender, Race of Fonteney.

A little to the sonthwards of the Keyser, lieth the east end of the Seames, and lye from thence at least three or foure leagues westnorthwest into sea. A great league northwest from the west poynt off the Seames, lyeth a suncken rocks, whereof men must take heed.

Seames.

And westsouthwest about two leagues from the Seames, lieth a row of rocks, like a bancke, whereupon it is not deeper then seven fathom, but betwixt the rocks and the Seams, it is 50 fathom deepe.

Betwixt the Seames and Ushant the bread found lieth in eastnortheast to S. Mathewes point, and from S. Matthewes point westsouthwest 5 leagues into sea.

Broad found.

To the eastwards of Fontenay, or the Lavender, lieth the Frieye Bay, there men may anckor for a southeast and east ends, in good anckor ground.

To the eastwards of the Frieze Bay, lieth Boldavids Bay a broad deep found, lying into the land eastnortheast. At the east side of that haven lie 2 little Ilands or Rocks, where men may anckor round about them, and lie sheltred for alle windes.

Frieze bay. Boldavids bay.

From the Race of Fontenay to the Pennes, these course is southeast about nine leagues, betwixt them both liet Oldiarne, a good Haven, about five leagues E.S.E. from Fontenay, thwart before the entry of it lieth a banke where men may run about it on both sides in 6 fathom.

Oldyarne.

The south point of this Haven is flat, therefore run in along by the north point, there is at low water not lesse then 3 fathom depth. From Oldiarne to the Pennes it is southeast and by south.

If you will anckor before Port Kapstand, you must anckor in 12 or 13 fathom, before the village that standeth upon the high land about halfe wayes betwixt the point of the Race, & the great sand-bay of Oldjarn, where the little sharpe Tower doth stand, the point of the Race shall then lie from you about northnorthwest, and you shall then lie a great half league from the land, further off from the shore it is rocky and foule ground, as some say. There have some nevertheless come to anckor there by night in 3 or 4 leagues from the shore in 25 fathom, but have not received any hurt neither of cables nor anckors.

The west end of the Seames, and the Pennes, lie southeast somewhat southerly, and northwest somewhat northerly, distant about 13 leagues.

The knowledge of the land betwixt Fontenay and Oldyarne, are two round hills, which men doe call the sheets, or Slaplakens, to the westwards off them stand two Mills. It is a very ragged point, and by these forefayd markes very good to beknown. Men may see them without the Seames in 55 fathom.

Sheetes.

From Oldyarne to the Pennes lieth the coast southeast & by south 5 leagues.

The Pennes are very good to be known, for him that hath seen them once: upon the southeast end standeth a thicke flat Tower; a little to the westwards of it standeth a sharpe tower, and somewhat more to the eastwards against the high land, standeth a village to see to like a castle, upon the east side thereof standeth a flat tower, and there close to the land lie 2 great rocks.

The Pennes lye off from the maine land, southeast two leagues into the sea. Forto fayle in there, you must come in there from the eastwards, and run alongst by the strant of the maine land, leaving all the rocks on the larboard side, untill that you come to a great rock, which you must leave on the starboard side, and runne about the southwards of it (being past

The Pennes.

it edge within it up towards the northwest, and you may anckor there a little within, in three fathom at low water, lying there, you can see no sea, but at high water the sea cometh very much tumbling in through the Rocks: You may goe away from thence at high water southeast through the Rocks into sea, but you must take very good heed, because it is there full of Rocks, whereof some are above water, and some under water. Without the forefayd great Rock in the comming in of this haven, it is at least ten fathom deep, so that for need men might well fave a great ship there.

Glanons. Glanant. From the Pennes to the Glanions or Glenant, the course is eastsoutheast with that course you shall run alongst to the southwards of them. Within the Glanons lieth a Haven, called Binder, at the east point of that Haven it is full of rocks. For to fayle in there, you must take heed unto these marks: there stand two Mills farre within the land, bring the easternost of the 2 over a little eastle that standeth upon a point within the Haven, and run in, keeping them so north, and northeast, and by east in, and then you cannot take hurt on neither of both shores, and being come within the haven, anckor before the Town.

Binder.

A league southwest from Gloyland or Glenant, by the Dutchmen, called the easter-Penmarkes, liet a great Rock under water, but is good to espied, in regard the sea alwayes breaketh upon it, as well within as without this Rock, it is 40 fathom deep.

When you come off from the Peus, with an eastsoutheast course, you shall runne alongst farre enough to the southwards of it. About 2 leagues to the eastwards of Glenant, lye the Ilands of Muttons, by the French called Illes aux Montons, you may saile through betwixt them and the main land, unto Groy or Blaver, also you may anckor within them in 10 or 12 fathom, betwixt the land and the foresaid Ilands, which are cleane upon the north side.

Muttons. Ilands.

Betwixt the Iland Mutton and Glenant lieth a rock, for to avoid it (for them which will sayle through there betwixt them) they must leave one third part of the channell towards Glenant, and the other two third parts towards Mutton, and then they may boldly run through there without feare.

From Mutton to the Iland Groy, the course is east and by south, upon the outer side of Groy stand 3 or 4 milles, the east end of it goeth steepe downe, and the west end sloping and flat down, thereby it is good to beknown. Vnder Groy is good anckoring for a southwest winde in fixe or seven fathom: Vnder the northeast point also is a good road for a west southwest and northwest winde, there is very good anckor-ground. At the southwest end runnet of a foule ledge, where of men must take good heed.

Groy.

Blaver. Within the Iland Groy lieth the Haven of Blavet, which lieth in about northwest in 4 and 5 fathom. Vpon the west side of this haven standeth a high sharpe Tower, called Quinperly, from the east point runneth off a great ledge of rocks, called the Baers, within it on the east side of the entry of the Haven lye two suncken Rocks, also on the west side a Rock with a hole, which at halfe ebbe is uncovered, where of men must take very good heed in the comming in; Men run in alongst by the west land, for to eschew the forefayd suncken Rock and foule grounds. The marks for to fayle in there are these, there lieth a little Iland within in the middeft of the haven, which you may see when you are without the Haven. To the eastwards of that little Iland upon the maine land, standeth an Abbey, bring that Abbey right to the east poynt of the haven, which lieth within the Baers, and fayle in with it, untill you come thwart of the east poynt, within the Baers, and runne about by it, being within it, there it is wide and broad, you may anckor there before the forefayd little Iland in 5 or 6 fathom, there it is at low water 3 or 4 fathom deepe, or else men commonly runne in about, by the poynt, untill they come in the oaze.

From the Pennes unto Bell-Ile, the course is eastsoutheast one and twenty leagues, but from Groy to Bell-Ile it is southsoutheast five leagues. Bell-Ile hath at the northwest end a steepe poynt, lying out with a great saddle, thereabouts stand also fome little houses, and the end goeth very steepe downe.

Road to know bell-Ile. When as Bell-Ile lieth northnortheast from you, the west end sheweth it selfe in there parts: the westermost whereof is a great Rock, which sheweth at a very high water almost under, at the east end there divided it selve off also a great rock: by these forefayd marcks it is indifferent well to be knowne, men may see Beel-Ile out of the sea in 55 fathom. At the south side lye off many rocks and little Ilands.

Road under Bell-Ile. If you will seeke a roade under Bell-Ile, then you must give the northwest end a good birth, off from it lieth a suncken rock under water, a good wayes from the land: being come within it, sayle then within two Cables lengts alongst by the land, within a Base shot about by the north poynt, untill you come before the village with the little sharpe Tower, called Pauls, there standeth a castle upon the poynt to the westwards of the forefayd little Tower, anckor within that poynt in nine or ten fathom, there you shall lye landlockt for a south, southwest and northwest wind. If it blow more northerly, you must shift, and runne before the east end (which is about halfe a league broad) and anckor there in ten or eleven fathom. This Iland lieth about southeast and northwest, according as the winde bloweth, men doe shift there from one road to another, it is there every where good riding.

Within the Iland Bell-Ile, to wit, betwixt Bell-Ile, and the maine land lye many little Ilands, where at divers places men may fayle through to the Rivers of Vannes, or Morbeam, Cardinall. Roche, Barnad, and the river of Nants, called the Loire. Of these Ilands are three the principall, the easternost is called the Cardinall, the east poynt whereof, and there poynt of Bell-Ile lye one from the other direct east and by north, and west and by south about 4 leagues. The middlemoft is called by some also the Cardinall, or else together with the easternoft Sandbank the Cardinalls. This hath a good Haven on the north side, going in by a great Rock. From the northwest poynt of the northermost or westermost, runneth a fandy ftrand unto the maine land, against the poynt betwixt Blavet and Morbeam, so that men cannot fayle there betwixt that and the maine, but at high water it is most covered, and at low water lieth most dry, at low water men may goe over there one foot from the Iland to the maine land.

He that commeth from the west, and is bound to Morbeam, Roche Bernard, or other places thereabout, must run to the southwards of it, & he will not fayle about to the southwards of Bell-Ile, he may fayle through betwixt the northermost and the middlemoft Iland, and also he may fayl through betwixt Bell-Ile and the forefayd Ilands, about to the eastwards of the Cardinall. The channell there betwixt them both, is about a league broad and cleane, it lieth through east southeast and southeast and by east, men may run alongst by the Cardinals either by night or by day, in 8, 9, and ten fathom, all cleane fandy ground.

For to fayle through betwixt the westermoft, which is fast at the north end with the ftrand to te maine land, & the middlemoft Iland, the course is from the northwest end of Bell-Ile eastnortheast. A little from the east end of the forefayd westermoft Iland, lieth a great round rock, which you must leave on the larboard fide, and run alongft by it, within two or three Cables lengths, and then you ftall leave on the ftarboard fide to feawards of you a great many rocks, fome above and fome under water, which lye towards the other Ilands, which you muft give a greater birth to, then to the forefayd great rock. From this forefayd channell to the river of Morbeam, Morbeam. or S. Iolme, the course is northeast or northeast and by east or els if you run about to the eaftwards to the Cardinal, and are bound to Morbeam, then goe away from the eaft poynt of the Cardinall, firft northwest, and afterwards northwest and you ftall have then in that fareway 8, and 9 fathom depth, goe then by little and little more northerly right with the point, which lieth to the westwards of S. Iolme, there runneth off the fayd poynt of S. Iolme, a ledge or riffe of rocks allmoft a halffe league into the fea, which you muft leave on the ftarboard fide, and runne into the westwards of it, betwixt the ledge and a little Iland which lieth eaftfoutheaft from the weft poynt, and is falt to the forefayd weft poynt, with rocks and foule ground, fo that you cannot fayle in alongft to the westwards of it, nor through between them: fo foon as you ftall be entred within the forefayd little Iland, you muft give weft poynt a birth, and run in alongft by the eaft fhoare, which is flat, and lieth from the Tower of S. John to the River of Vannus northweft and southeaft but you muft be fure to reckon your tyde well in this Channell, for it runneth in and out the River of Vannes fo ftrong that you cannot fayle in with an ebbe, although it blow a ftorm, likewife doth it to the contrary with the floot, therefore you muft fayle in there with a ftill water. At the middle poynt where the river doth devide it felfe in two (whereof the one runneth to Vannes, and the other to Auray) lye many rocks, the moft part under water, which you leave on the ftarboard fide when you are bound to Morbeam or Auray, and on the larboard fide when you are bound to Vannes when you are come from fo far within, that the Tower of Morbeam is weft from you anckor there in the middeft of the haven, in 9 fathom, and then ftall Auray the innermoft little Tower lye northnorthweft from you, and the other little

little Tower north and by east, but the point of Mayland eaft foutheaft. The weft fhoare thwart of it is very fteepe, but oafie and foft, you can take no hurt of it, although you fayled right againft it.

The east point of the Cardinall, and the entring of the Haven of Morbeam lye N. N. W. and S. S. E. one from the other.

From the east poynt of the Cardinall to the River of Roche Barnard, the courfe is right northeaft: there lyeth a little Iland about halfe wayes betwixt the Cardinall and the forefayd River, or rather nearer the Cardinall then the River (for when men are by the River, they can but even fee the forefaid little Iland) men runne with the forefaid courfe of northeaft clofe alongft to the weftwards of that litle Iland, and fhall fall a little to the northwards of the river, run then within a Cables length a longft by the fhoare unto it, untill that the river doe open it felve, and then fayle amids the channel, and give the rocks a birth that lye at the eafter fhoare. Being come within the rocks, you may anckor there, or elfe fayle on againft the fhoare on the ftarboard fide, and fo may fave fhip and goods without anckor or cable, if there fhould be fuch need. At low water with an ordinary tide, there is about eleven, and with a fpring nine foot water; with an ordinary tide it ftoweth there about a fathom, but with fpring 2 fathom up and downe: the entring of the river lieth in eaft and by fouth. A little to the eaftwards of the rivers mouth, lieth a great rock, which at high water is covered.

Hee that commeth from the River of Nantes, and is bound to Roche Barnard, and is not well acquainted there betwixt both, let him runne fo farre to the feawards of the Cardinall (when hee is to the weftwards of the Four) untill that hee run about a feaboard of that forefayd little Iland (lying halfe wayes betwixt the Cardinall and the River of Roche Barnard) then goeth he furely cleare off all the foule ground and other dangers, men may faile clofe alongft by it to the weftwards, but to the eaftwards of it lye many Rockes and fhowls.

Hee that will faile alongft to eaftwards or to the northwards of it, muft leave about 2 third parts of the water to the Iland, and one third part towards the land, and fo run through betwixt them, but muft looke out wel.

Croswyck Betwixt the rivers of Roche Bernard and Nantes, lieth Old-downes, Croifill, or Croswyck and Poelgem. Croswyck hath two poynts, within the northweft point lieth the great village of Crofwyck, which hath a thick tower, and there is a great indraught like a haven, where men may goe to anckor in five, fix or feven fathom: to the weftwards of it ftandeth alfo a flat Church upon the high land. The land of Old-downes Olddownes Poelgem. lieth a little to the northwards of the Church. Poelgem is a village to eaft wards of Crofwick, with a high ftarp tower.

About two leagues from the land foutheweft and by S. from Crofwick, and weft and by north northerly from the E. point The Four. of Poelgem, lieth a great banck, called the Four, which at fome places falleth dry at low water, and lieth from Bell-Ile neare about eaft and lieth the longeft way foutheweft and northeaft.

For to fayl into the river of Nantes. If you will faile from Bell-Ile to the river of Nantes, then goe away from the eaft end of the Cardinal, or from the eafternoft rocks, that lye of from the Cardinall, directly E. N. E. towards the weft point of Crofwyck, for to fayle a werher of the forefayd Four, fo long until it begin to fhowld, and that the ftarp tower of Poelgem commeth againft the higheft of the eaft point of Crofwick, then you runne alongft to the northwards of the forefayd banck, goe then E. S. E. or according as the wind is eaft & by fouth, and E. S. E. on to the Rock with the hole, called Pierre-perce, but fo that you come not Pierre-perce. very neare (at low water) the land fomwhat to the weftwards of Poelgem, for it is not cleane alongft by it. Betwixt the Four and the point of Crofwyck it is in the fareway 8, 9. and 10 fathom deepe.

From the point of Poelgem eaftwards lie fome little Ilands and Rocks, which are very foule, come not very neare them, nor the fhoare thereabouts. If it fhould happen that you fhould turne to windwards, for at low water there falleth many of the rocks dry, when you come neare the rock (with the hole) then run alongft to the northwards of it, and run in very clofe by it, leaving it on the ftarboard fide of you for to avoid the foule grounds, which lye off from the point of Poelgem towards this rock. Clofe alongft by this rock it is 4 fathom deepe. Being paft this Rock with the hole then runne all alongft by S. Nazare. the north fhoare, unto S. Nazare in 3 or 4 fathom at low water, but you muft take heed of a rocky point, fomewhat to the weftwards of S. Nazare, the markes thereofare thefe: There ftandeth a mill upon the high land, fomewhat farre within the land, when that commeth over a country-mans houfes, which ftandeth below by the river, then are you thwart of the rocks, being paft them, keep yet the north fhoare, and runne alongft by it, untill you come within the point of S. Nazare, and anckor there in 6 or 7 fathom. In the middeft of the river betwixt the forefaid rocks, with the hole, and S. Nazare, lieth a row of Rocks, called Les Porceaux, thefe come at halfe tyde above Les porc water: Becaufe of them, and alfo more other fhowlds, lying ceaux. in the river, you muft run all alongft by the north fhore, as is beforefaid.

Somewhat within S. Nazare upon the north land ftandeth a ftarp Tower, when that commeth without the fouth land, then you cannot take hurt off the forefaid rocks, run alongft to the northwards of them, a little to the eaftwards off them lieth another fhowld of Rocks, where men may run about the eaftwards of it with great fhippes, it is there very fhowld water alongft to the point, being within the point, men may anckor as is faid, in 6 or 7 fathom. To the eaftwards of Saint Nazare lye two other villages, and there betwixt the Villages, it is very fhowld and ftony ground, there men muft borrow over the fouther fhoare, but when you are halfe wayes to that eaftermoft Village then you may well faile right on with the point off the Village, untill you be paft it, but againft that eaftermoft Village on the fouth fide, upon the point, lieth a banck, called Pinbuf which lieth at leaft halfe wayes over in Pynbuf. the River, but men may run through betwixt the point and this bancke in 7 or 6 fathom, this is the road for fhipps that are bound out to fea.

A league further in, in the middeft of the river lie two ftony bancks in the fareway. At Pelerin is the lading place, two Pelerin. leagues from Nantes, where the good is brought off with Lighters from the fhips, but from S. Nazare to Nantes, or S. Nazare. Pelerin, it is Pilots water, which men do commonly take in, by the above named ftarp Tower, called S. Nazare, where men (when they are within it) may anckor in 10 or 12 fathom, and ftay for a Pilot.

For to run into Sea from S. Nazare, alongft to the fouthwards of the rock with the hole, you muft run firft alongft by the north fhoare, as is beforefaid, untill that you come without the fecond point off the River, edge them off from the north land to the middeft of the River and faile a good wayes about to the fouthwards of Piere-perce, when as you can fee the Rocke (which lieth to the northwards off Piere-perce) without the point, there it is deepe 4 fathom and a halfe, and when as Piere-perce is N. N. Weft, and north and by weft from you, then you come thwart of the Rock, and there you finde deeper water, to wit, five, fixe and at leaft 7 fathom, but when you come in the fareway of Pickeliers, then you get 10 or 12 fathom water.

Before the River of Nantes lye many bancks, but at halff flood men goe over them, the fouth point of the River off Nantes lieth from the North point Northnorthweft and fouthfoutheaft 4 leagues afunder, to the fouthwards off it, the land lieth in with a great indraught, and there men doe run into the bay. Thefe uneven bancks in the River of Nantes, are very unlike, fometimes men found in 15 fathom, and prefently afterwards but 7 or 8 fathom. Banks before the Loire.

But to fayle from Bell-Ile to the bay or Armentiers you muft Armetiers goe N. E. S. E. untill that you fee the Abbey of Armentiers to the eaftwards of the trees, which ftand within the land over the fame Abbey, then goe on eaft and by north fo long untill that the Abbey come within the caftle of Armentiers, then are you within the Monck legge. Goe then againe E. S. E. untill that you bee within the rock of Pierremen, you may goe about it Pierremen on both fides, and when that you can fee the Graven open, then you may anckor in 7 or 8 fathom, and row a fhoare to fetch a Pilot, it is Pilots water. From Bell-Ile to Armentiers, the courfe is eaft foutheaft about 12 or 13 leagues afunder.

From Armentiers to Vfe, or Heys, it is fouth and by eaft 7 leagues, and from Bell-Ile to Vfe or Heys, foutheaft 16 leagues. The Iland of Pickeliers lieth right before the point of Pickeliers. Armentiers. Betwixt Armentiers or Pickeliers and Vfe, it is an uneven fareway, with many fhoulds and bancks, from foure, five, fixe, and feven fathom. Upon the Vfe ftandeth a ftarp Heys or tower and fome little houfes or milles, whereby it is very good Vfe. to be knowne. It is in the fareway betwixt Vfe and Bell-Ile 35, and 40 fathom, but when men are within the fareway, it is 25 fathom deepe.

Vnder Vfe it is not very good riding, the fea commeth allwayes fo rowling in, as if the water come through under the Iland, at the north-end it is fhowld water, the road is, when the Church fteeples, is fouthweft from you, in eight or nine fathom; but men lye there not fheltred but onely for a fouthweft and weftfouthweft winde, and it doth ripple there alwayes very much.

From

From Vſe to the Killiats, or to the Iland of Saint Martens, the courses is foutheaſt twelve or thirteene leagues. Betwixt both lieth the Bearges of Olone about halfe a league off from the land of Poictou, and eaſt and by ſouth ſeven leagues from Vſe in the right fareway, and in regard that it is noting but Rocks and ſtones, therefore it is not good to come neare them in darke weather, men may ſaile round about them, and at low water, they are uncovered. If you will ſaile from Vſe, unto the Killiaets, or unto the taile of Aiſe, through within the Baerges, then ſaile on ſtrft eaſt, and being within the Baerges off Olone, ſaile to the land of Poictou, which lieth from Olone to Saint Martens Iland eaſtſoutheaſt, and from Olone to the Pickelliers northweſt.

For to ſayl into the Killiats.

From Olone to the Killiaets the coaſt lieth moſt eaſtſoutheaſt foure or five leagues. For to faile into the Killiaets, which is in alongſt to the northwards off the Iland of S. Martien, betwixt the forefaid Iland and the maine land of Poictou, you muſt goe in ſomewhat more northerly then the middle of the channell, or leave two third parts of the channel towards S. Martens Iland, and one third parts towards the maine land. Alongſt by the Iland of Saint Martens it is uneven, and ſomewhat full of bancks; come not to neare alſo the maine land, for there lye off alſo ſome banckes, but you may borrow of them by your lead. Goe in alongſt, as before is ſaid; untill that the Church of Saint Martin be ſouthſouthweſt from you,

Marcks the bancks before Saint Martens.

then you ſhall bee paſt the banck which lieth north from Saint Martens, and lieth of from the ſhoore ſomewhat to the weſtwards of Saint Martens, that is, a hard ſteepe ſtony bancke: ſet about a fathom depth, and at high water about foure fathom. When the forefaid little Tower off Hars commeth againſt a mill which ſtandeth a the ſouth end of Loy, then are you within the bancke, to wit betwixt the Bancke and Saint Martins. When S. Martens commeth to be ſouthweſt and by ſouth, and ſouthſouthweſt from you, then you may boldly ſaile over the end of the banck towards S. Martins, you ſhal finde there at low water and ſpring tide at leaſt 3 fathom or ſixteene or ſeventeene foot, alſo one caſt or 2, but 12 foot then it is al ſoft ground, as alſo before Saint Martens, but the bancks are hard, and with ſpring tides there remaineth little water upon them. Before S. Martins you may anckor in 4, 5, or 6 fathom.

How to Anckor before S.Martens.

For to anckor before S. Martins, you muſt anckor ſo, that you may ſee open into the haven, and that the point off the Abbey, and the Boſſe doe ſtand the length of two capſtone-bars one from the other, there it is with ſpring tydes at low water three fathom and a halfe, but a high water ſix fathom and a halfe deepe.

When you faile into the Killiaets, as before is ſaid, it is 12, 11, and 10 fathom deepe, but being come ſo farre that the Tower of S. Martins beginneth to ſtandeth ſouthweſt from you, there it will be by little and little ſhoulder, and then you may well edge towards the Iland in five and foure fathom, it ſhowldeth then ſuddenly up, and will be from ten, quickly 5 and 4 fathom.

If you will goe over the banck that lieth off from the Abbey with a ſhippe that draweth much water, then you muſt ſtay ſo long that it be halfe flood, for at low water there remaineth no more upon it then three fathom, or a foot or two more: when it is fomewhat flowed, then you may well goe over with a great ſhippe. When the little Tower of Huſſow commeth to the north end off the Iland Vrck, or Tivalenes, then are you upon the ſhoulderſt off the banck, but when the litle Tower commeth over the ſouth end of that litle Iland, then it beginneth to deep againe.

The marker for to keepe the deepeſt water, when you run ofter the banck, are theſe: keep the great Tower of Rochel a handſpikes length to the ſouthwards of the wood off trees, which ſtandeth upon the northermoſt high land, and run ſo over the banck, it is there all ſoft ground.

If you wil anckor before the Abbey within the bancke, then run in 6 or 7 fathom and anckor there.

But if you will not anckor under S. Martens, but wil faile forth towards Burnt Iland, then bring that forefaid litle Tower of Luſſou over the little houſe that ſtandeth upon the litle Iland Vrck, and keep it ſo ſtanding, and then you can take no hurt of the Laverdyne.

Laverdin. The Laverdyne is a rane of rocks together a muſket ſhot long, which lieth off from the eaſt point of S. Martens Iland, about an Engliſh mile, and with ſpring at low water is uncovered betwixt it and the Iland of Saint Martens men may ſaile through, there is depth enough. The markes of the Laverdyne are theſe: When you come in at the Killiats, and ſaile through betwixt S. Martens iland and the Boſſe, and you come to ſee the great Tower off Rochell even vvithout the point off the Boſſe, then are you right thwart of the Laverdyne, which lieth then ſ.w. from you, it is there betwixt them both not very wide: or elſe when the forefaid great Tower of Rochel ſtandeth even without the point of Boſſe, and the North point of the Plom a ſhippes length without the ſouth point (which is the north point of the Boſſe) then are you right upon the Laverdyne, therefore when Rochel commeth a ſhippes length to the ſouthwards of the Boſſe (when you come in at the Killiats) then are you paſt the Laverdyne, and you may boldly goe on ſouth-eaſt, and ſoutheaſt and by ſouth towards Burnt-Iland.

Porthus. Porthus is a broad and wide channell, lying in through betwixt S. Martens Iland and Oleron, and lieth from Vſe S. E. and by eaſt diſtant about 15 leagues. If you will ſaile into Porthus, then run in betwixt both lands E. S. eaſt, but much neare S. Martens iland, for to avoid the banck off Oleron, which is a foule ledge of rocks, at the N. end of Oleron, come no nearer it by night then in 12 or 13 fathom.

When you come then by the eaſt end of SaintMartens Iland and are bound to Rochell, or elſe will anckor under theſe Boſſe bring that great Tower of Rochel a ſhips length without the Boſſe, ſo you can take no hurt of the Laverdyn. You may anckor under the Boſſe in 5 or 6 fathom ſoft ground, ſo that the point doe lye north from you. Or elſe if you will anckor under the Abbey of S. Martens iland, then runne in upon the forefaid marcks, ſo long untill that the forefaid Abbey come without the S. point of the ſame iland, faile then right with it, and then you ſhall leave the Laverdyn fare enough on the larboard ſide off you. And being come neare the Abbey, anckor a little to the eaſtwards off it in 5, 6, or 7 fathom, there is the road for ſhips that are bound out.

When you goe into Porthus, and will ſail to the Burnt-Iland, then runne in (as before is ſaid) untill you come neare the eaſt end of S. Martens Iland: from thence the courſe is ſoutheaſt and by eaſt, or from the Boſſe ſouth or ſouth and by eaſt, or with a weſterly wind ſouth and by weſt unto that Iland. Burnt Iland.

When you faile ſo neare that Burnt-iland that the Tower off Voorn, or the Four, commeth over the Burnt-iland, there you may caſt your balloſt over board, it is there 12 fathom deepe.

If you muſt turne to and againe with a ſoutherly winde from the Boſſe to the Burnt-iland, or from Burnt-land to the Boſſe, then come not neare the land of Rochell, there lye divers ſtony bancks eaſt alongſt the land, a good wayes from the ſhoare, whereof you muſt take heed. When Rochell is hidden behinde the ſouth point which lieth over againſt the Creeke, there lieth a ſtony bancke, upon which remaineth not a fathom of water.

If you will faile into the river of Sherrant, then runne about to the ſouthwards of Burnt-iland, you may alſo faile about to the northwards of it, and faile in by the Tower of Voorn, or Four. At low water this river falleth dry, at leaſt 4 leagues within the land. For to faile from Burnt-land to Burwage, you muſt faile away S. S. eaſt and keepe the litle Tower off Heers to the weſtwards of the wood, ſo long untill the Tower of Voorn or le Four, come over the little red-tyled houſe, that ſtands upon the S. ſide off the river of Sherrant faile then in S. E. and by little and little S. E. and by eaſt untill that Front (a village that lieth upon the ſtrand) commeth to the N. wards off Soubiſe, when as then Soubiſe commeth within the foreſaid village, and the mill above the village, then you ſhall be againſt the point off Oyſterbanck, goe then in alongſt S. E. and by ſouth, and bring that outermoſt litle Tower off Heers, over the outermoſt ſandy place, where the gallowes ſtandeth by, keep them ſo ſtanding, and faile in ſouthſoutheaſt, when as then the little Tower off Heers commeth to the eaſtſide of the valley, which is in the wood, then keepe that ſharpe litle tower right over the eaſt ſide of the valley, of the wood, and faile in ſo into the Creeke, or river of Burwage. At Burwage was wont not to ſtand a houſe, where now is a ſtrong faire Towne, being builded ſo within 70 or 80 yeares paſt. Oyſter-banck.

The Bannier lieth alongſt the land of Oleron and lieth untill within Burnt-Iland, at low water it is uncovered, and the tayle of it lieth farre to the northwards. If you ſhould turn out from the Creek towards the Burnt Iland, then bring the Tower of Rochell not without the Burnt Iland, before you come thwart of it, becauſe of the Baniard, and then you ſhall take no hurt of it.

At

At ſouth end of Oleron, betwixt Oleron and the land to the ſwards of it, is yet another channell, where men may ſail in and out, called the Mamme-ſound, deep enough for ſhips, it lieth in from out of the ſea eaſt and by n. being come twithin, there runneth up a river ſoutheaſt towards Sales, where men doe lade ſalt, being paſt that, to the other point of Mamme-ſound, lieth a plate, whereof men runne to the wards upon theſe marks: you muſt keepe the mill that ſtan upon the lands of Oleron over the trees, and ſo you ſhall to the northwards of the plate, there is the road for them, wil lade ſalt at Oleron or Olderdorp.

But if will runne in through, and out againe, then you muſt ſail farre to the eaſtwards, untill that Sales come over the trs, which ſtand within Merven, for to avoyd the tayle or that ſhooteth of from Oleron: when Sales commeth over trees, faile then north and by weſt on, to the Burnt-Ilat but bring Duke Charles Tower to the S. wards of the B-Iland, for not to faile within the Banniard. When the Tower of Heers commeth to the wood keepe it then ſo ſtling untill Rochell commeth over the North-ſide of thernt-Iland, ſayle then out at the Portruſh. There ſhooteth alſo a riffe from the weſt end of Saint Martens Iland, whei you muſt take heed.

About ſo, or a little more weſterly thirteene leagues from the Iland Vſe, ſouthweſt and by weſt from the Iland S. Martens, an. n. w. or ſomewhat more northerly from the River, of Beaux, lye the Rockes of Rockedon, or Rochebon, of ſomlled Urkamia, in forme of a Trevet or Brandize. The fuermoſt of the three is the ſhowldeſt, whereupon remain at low water about two fathom depth: At the ſouthweſt ſide ground is black little ſtones, and at the N. eaſt ſide whitnd, but you may not come neare them by your lead foaby them.

A little toe weſtwards, not farre from the foreſayd rocks, lyeth another rock, whereupon is at low water 5 fathom wateevertheleſſe with a ſtorme the ſea breaketh terribly upon.

Of depths and grounds about theſe places.

At Abberwrack eaſtnorthealt & weſtſouthweſt moone maketh full ſea.
Without Ushmuteſtſouthweſt and n. n. e. moons, and within the Trade ſ. w. and by weſt moone maketh full ſea.
At S. Matthewsheint, a ſouthweſt and northeaſt moon maketh highelt water.
In the broad Sea, betwixt Vshant and the Seames a weſtſouthweſt and eaſtnorthealt moonmaketh the highelt water: The flood falleth very ſtrong upon Vſhant, and the ſouthwards of it through the Mullens. Thwart over the Trade, towards Rockevens. Likewiſe in through the broad Sound into Breſt. Alſo alongſt by, Matthewes point towards the Fourne, or Backovens, with very great ripping. He that commeth ſayling about Vſhant, muſt reckon thereupon.
In the Race of Foinay a ſ. w. and by ſ. and n. e. and by n. moon maketh full ſea. The flood ſath very ſtrong thorow betwixt the Keyſer, (ſomwhat thwart over towards Lavender, with very great rippeling over the Caſts, (that is the ledge of ſicks, which lyeth off from the Lavender) and from thence forth n. and nad by w. inwards to S. Matthewes point: with calms men muſt take very bd heed not to be miſcaried away with the current. With ſtormy weather I of then, or Lit is not without danger to come in this channell, eſpecially wh an ebbe or out fall.
On theſe coaſts of Ireaigne, and the land thereabouts, a ſ. w. and n. eaſt moon maketh the high water: but within the havens, rivers, indraughts, & bayes, a ſ. w. and by land n.e and by e. moone, or a point later, according as the havens or rivers le lye deepe in the land. Men doe not reckon there any ſetting or running (the ſtreames. for the flood comment (through the ſwelling of the great Ocean) right againſt the coaſts, and ſo runneth onely into the havens, the the contrariwiſe goeth thwart from the ſhoare to ſeawards, when it falleth: what men cannot perceive any courſe of ſtreames except it bee a little through, or about ſome points of Iands.
On theſe lands, as alſo all the coaſts of Britaigne, a northeaſt and ſouthweſt moon maketh high wate and within the havens, rivers and in-draughts, a point or two later according as they lye far within the land.
On the coaſtes and lands a ſ. w. and n. e. moone maketh high water, within the land

Of the depths about the places, and in what depths men may ſee the land.

Thwart of Abberwrack 5 leagues from the land, it is deep 50 and 55 fathom,
The Backovens, or the land of the Fourne men may ſe in 50 fathom.
Vſhant being about ſ. from you, you may ſee in 40 fathom.
Southweſt from Vſhant 5 or 6 leagues of it is deepe 75 fathom, and then you may ſee the land from the poop.
In the broad Sound it is 45 fathom.
A little without the Seames about a league, it is deepe 50 fathom.
Men may ſee the Seames and the Sheete, or Sleeplaken, in 60 or 65 fathom.

Berwixt Vſhant and the Seames in the fareway it is deepe 55 fathom.
Thwart of the Pennes and the Glanons men may ſee the land in 55 and 60 fathom.
Bell-Ile men may ſee from below in 55, but under the top in 60 fathom.
Without Vſe it is 35 fathom deep, and then men may ſee the land from below: when it is clear weather men may ſee it in 60 fathom.
The land of Olone men may ſee it from below in 25 and 30 fathom.
S. Martens Iland and the north end of Oleron men may ſee in 28 and 30 fathom. When men get ſight of S. Martens Iland, they ſhall ſee upon it a high Tower, with a high houſe, and upon the ſtrand a mill with foure or five high fand-hills. Upon Oleron men ſhall ſee a high ſpire Tower, upon a red point, wherevnto ſhall ſee ſome threes ſtand over it and to the ſouthwards of it, is at two or three places ragged fand-hills.

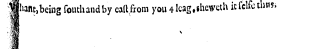
How theſe lands doe lye one from the other, and from other lands.

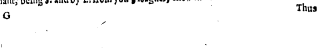
From Ile de Bas, to the fourne, weſtſoutheaſt	16 leagues
From the Fourne to S. Matthewes point ſ.ſe. and ſ. e. and by ſ.	4 leagues
From S. Matthewes point to Crordon, or Claeſdowne e.ſe.	3 leagues
From S. Matthewes point to the Race of Fonteray, or the Keyſer, by eaſt	ſouth and 5 leagues
From Vſhant to Portland northeaſt	55 leagues
From Vſhant to the Steart northeaſt and by north	40 leagues
From Vſhant to the Lizart north	29 leagues
From Vſhant to Silly northweſt and by north	37 leagues
From Vſhant to cape Cleare in Ireland northweſt	84 leagues
From Vſhant to the Iland of S. Michaels, ſouthweſt and by weſt	360 leagues
From Vſhant to the cape Finiſterre ſouthſouthweſt weſterly	133 leagues
From Vſhant to Cifargt ſouthſouthweſt	77 leagues
From Vſhant to cape Prior ſouthſouthweſt	160 leagues
From Vſhant to cape de pinas ſouth	97 leagues
From Vſhant to Lezedo ſouthſoutheaſt	115 leagues
When men ſayl away ſouth and by eaſt from Vſhant, then they run a little without the Seames	
From the Race of fonteray to the pennes ſouthaeſt	9 leagues
From fonteray to Oldyarne eaſtſoutheaſt	5 leagues
From Oldyarne to the pennes ſoutheaſt and by ſouth	5 leagues
From the weſtend of the Seames to the pannes e. ſ. e. ſomewhat ſoutherly	13 leagues
From the Seames to the Band or Crage of Oleron ſouthe, & by e.	115 leagues
From the Seames to the bayone in france ſoutheaſt	121 leagues
From the Seames to S. Sebaſtians ſoutheaſt by ſouth	110 leagues
From the Seames to Bilbaw ſouthſoutheaſt, eaſterly	119 leagues
From the Seames to S. Andero ſouthſoutheaſt	88 leagues
From the Seames to cape de pinas, or Tores, ſouth	93 leagues
From the Seames to Ribadeus, ſouth and by weſt	90 leagues
From the Seames to cape de Ortegall, ſouthſoutheaſt ſoutherly	111 leagues
From the Seames to cape Finiſterre ſ.w and by ſouth, ſoutherly	45 leagues
From the Seames to Silly, northnorthweſt	leagues
From the pennes to the Glanons, the courſe is eaſtſoutheaſt	9 leagues
From Glannons to Gloyland to Groy, eaſt and weſt	5 leagues
From the eaſt end of Groy to the weſt end of Bell-Ile, the courſe is ſouthſoutheaſt.	15 leagues
From Glannons, or Gloyland, to Bell-Ile, ſoutheaſt and by eaſt	5 leagues
From the northweſt end of Bell-Ile to the eaſtend of the Cardinall, the courſe is ſoutheaſt and by eaſt	22 leagues
From the pennes to bell-ile eaſtſoutheaſt	11 leagues
From the eaſt end of bell-ile to the eaſtend of the Cardinall, eaſt and by north	4 leagues
From the eaſt point of the Cardinall, to the entring of Morbeam weſt	northnorth- 88 leagues
From the pennes to Viverus, ſouthſoutheaſt	88 leagues
From the pennes to Cifarga, ſouthweſt and by ſouth	104 leagues
From Groy to Viverus, ſouthweſt and by ſouth	93 leagues
From Groy to cape de Finiſterre, ſouthweſt	123 leagues
From Bell-Ile to the river of Bourdeaux, ſoutheaſt	50 leagues
From bell-Ile to S. Sebaſtians, ſouthſoutheaſt ſoutherly	82 leagues
From bell-Ile to S. Andero, ſouth	72 leagues
From bell-Ile to cape de pinas, or Tores ſouthſoutheaſt	80 leagues
From bell-Ile to cape de Ortegall, ſouthweſt	90 leagues
From bell-Ile to cape de Finiſterre, ſouthweſt	123 leagues
From the eaſt point of the Cardinall to Croſwyck, e. n. e.	5 leagues
From the point of Croſwyck to pierepeece, e.ſ.e.	3 leagues
From the Cardinall to Old-downes, e. n. e.	7 leagues
From the north point of the river of Nantes, to the picqueliers, e.ſ.e.	7 leag:
From Pierremen to Armenciers weſtſoutheaſt	2 leagues
From Armentiers or Pickeliers to the weſt end of Vſe, ſouth and by eaſt and ſouthſoutheaſt at leaſt	14 leagues
From the eaſt end of bell-Ile to Vſe, ſoutheaſt eaſterly	16 leagues
From Vſe to the Barges of Olone, eaſt and by ſouth	7 leagues
From Vſe to the Killiaets, or S. Martens Iland, e.ſ.e.	12 or 13 leagues
From Vſe to to cape de pinas, ſ. w. and by ſouth	75 leagues
From Vſe to cape de Ortegall, ſ. w. and by w.	93 leagues
From Vſe to S. Martins Iland, or the Killiaetses, the courſe is e.ſ.e.	12 or 13 leag.
From Vſe to Portruſh, or the Band of Oleron, the courſe is ſoutheaſt and by eaſt	15 or 16 leagues
From the Band or Craghe of Oleron to the Tower of Cordan ſ. ſ. e. and ſouth and by eaſt	11 leagues
From S. Martins Iland to the tower of Cordan, or the river of Bourdeaux, ſouthſoutheaſt	16 leagues
From S. Martens Iland to cape de pinas, S. w.	80 leagues
From S. Martens Iland to Ortegall, the courſe is weſtſouthweſt ſomewhat ſoutherly	99 league

Heights.

Vshant lyeth in	48 degrees 30 minuten
The Seames lye in	48 degrees 5 minuten
The Iland bell-Ile lyeth in	47 degrees 50 minuten
The Iland Vſe in	46 degrees 48 minuten
The north point of Oleron in	46 degrees 15 minuten

How theſe Lands doe ſhew themſelves at Sea.


Vſhant is fouth and by weſt from you 4 leagues, it ſheweth it ſelfe in this forme


When Vſhant is northnortheaſt from you, it ſheweth thus.

Vſhant, being ſouth and by eaſt from you 2 leag, ſheweth it ſelfe thus.

Vſhant, being ſ. and by E. from you 3 leagues, ſheweth it ſelfe thus.

From Use to the Killiats, or to the Iland of Saint Martens, the courses is southeaft twelve or thirteene leagues. Betwixt both lieth the Bearges of Olone about halfe a league off from the land of Poictou, and eaft and by fouth feven leagues from Use in the right fareway, and in regard that it is noting but Rocks and ftones, therefore it is not good to come neare them in darke weather, men may faile round about them, and at low water, they are uncovered. If you will faile from Use, unto the Baer-Killiaets, or unto the taile of Aife, through within the Baerges of Olone, faile to the land of Poictou, which lieth from Olone to Saint Martens Iland eaftfoutheaft, and from Olone to the Tickellers northweft.

For to fayl into the Killiats.

From Olone to the Killiaets the coaft lieth moft eaftfoutheaft foure or five leagues. For to faile into the Killiaets, which is in alongft to the northwards off the Iland of S. Marten, in betwixt the forefaid Iland and the maine land of Poictou, you muft goe in fomewhat more northerly then the middle of the channell, or leave two third parts of the channel towards S. Martens Iland, and one third parts towards the maine land. Alongft by the Iland of Saint Martens it is uneven, and fomewhat full of bancks; come not to neare alfo the maine land, for there lye off alfo fome banckes, but you may borrow of them by your lead. Goe in alongft, as before is faid; until that the Church of Saint Martin be fouthfoutweft from you, then you fhall bee paft the banck which lieth north from Saint Martens, and lieth of from the fhoare fomewhat to the weftwards of Saint Martens, that is, a hard fteepe ftony bancke: which fhowleth up fuddenly. For to avoid it when as you muft turne to and againe with an eafterly, or a northeaft winde, you muft not bring the little Tower of Hars in the Village off Loy, but when the little Tower of Hars commeth to the firft, or northermoft houfe of Loy, then you muft caft about, for then you come againft the banck, where remaineth at low water about a fathom depth, and at high water about foure fathom. When the foresaid little Tower off Hars commeth againft a mill which ftandeth a the fouth end of Loy, then are you within the bancke, to wit betwixt the Bancke and Saint Martins. When S. Martens commeth to be fouthweft and by fouth, and fouthfoutwheft from you, then you may boldly faile over the end of the banck towards S. Martins, you fhal finde there at low water and ftrong tide at leaft 3 fathom or fixteene or feventeene foot, alfo one caft or 2, but 1 foot then it is al foft ground, as alfo before Saint Martens, but the bancks are hard, and with spring tides there remaineth little water upon them. Before S. Martins you may anckor in 4, 5, or 6 fathom.

Marckt the bancks before Saint Martens.

For to anckor before S. Martens.

For to anckor before S. Martins, you muft anckor fo, that you may fee open into the haven, and that the point off the Abbey, and the Boffe doe ftand the length of two capftone-bars one from the other, there it is with fpring tydes at low water three fathom and a halfe, but a high water fix fathom and a halfe deepe.

When you faile into the Killiaets, as before is faid, it is 12, 11, and 10 fathom deepe, but being come fo farre that the Tower of S. Martins begineth to ftandeth fouthweft from you, there it wil be by little and little fhowlder, and then you may well edge towards the Iland in five and foure fathom, it fhowldeth then fuddenly up, and will be from ten, quickly 5 and 4 fathom.

If you will goe over the banck that lieth off from the Abbey with a fhippe that draweth much water, then you muft ftay fo long that it be halfe flood, for at low water there remaineth no more upon it then three fathom, or a foot or two more: when it is fomewhat flowed, then you may well goe over with a great fhippe. When the little Tower of Hufflow commeth to the north end off the Iland Urck, or Tivalenes, then are you upon the fhoulderb off the banck, but when the litle Tower commeth over the fouth end of that litle Iland, then it begineth to deep againe.

The marker for to keepe the deepeft water, when you run over the banck, are thefe: keep the great Tower of Rochel a handfpikes length to the fouthwards of the wood off trees, which ftandeth upon the northermoft high land, and run fo over the banck, it is there all foft ground.

If you wil anckor before the Abbey within the bancke, then run in 6 or 7 fathom and anckor there.

But if you will not anckor under S. Martens, but wil faile forth towards Burnt Iland, then bring that foresaid litle Tower of Luffou over the little houfe that ftanderh upon the little Iland Vrck, and keep it fo ftanding, and then you can take no hurt of the Laverdyne.

Laverdin.

The Laverdyne is a rane of rocks together a musket fhot long, which lieth off from the eaft point of S. Martens Iland, about an Engliſh mile, and with ſpring at low water is uncovered betwixt it and the Iland of Saint Martens men may faile through, there is depth enough. The markes of the Laverdyne are thefe: When you come in at the Killiats, and faile throug betwixt S. Martens iland and the Boffe, and you come to fee the great Tower off Rochell even vvithout the point off the Boffe, then are you right thwart of the Laverdyne, which lieth then ſ.w. from you, it is there betwixt them both not very wide or elſe when the forefaid great Tower of Rochel ſtandeth even without the point of Boffe, and the North point of the Plom a fhippes length without the ſouth point (which is the north point of the Boffe) then are you right upon the Laverdyne, therefore when Rochel commeth a fhippes length to the ſouthwards of the Boffe (when you come in at the Killiats) then are you paſt the Laverdyne, and you may boldly goe on ſouth-eaſt, and ſouthweſt and by ſouth towards Burnt-Iland.

Fourthus is a broad and wide channell, lying in through betwixt S. Martens Iland and Oleron, and lieth from Vſe S. E. and by eaſt diſtant about 15 leagues. If you will faile into Portthus, then run in betwixt both lands E. S. eaſt, but much neareſt S. Martens iland, for to avoid the banck off Oleron, which is a foule ledge of rocks, at the N. end of Oleron, come no nearer it by night then in 12 or 13 fathom.

Riffe at S. martens Iland.

When you come then by the eaſt end of Saint Martens Iland and are bound to Rochell, or elſe will anckor under theſe Boffe bring that great Tower of Rochel a ſhips length without the Boffe, ſo you can take no hurt of the Laverdyn. You may anckor under the Boffe in 5 or 6 fathom ſoft ground, ſo that the point doe lye north from you. Or elſe if you will anckor under the Abbey of S. Martens iland, then runne in upon the foresaid marcks, ſo long until that the foresaid Abbey come without the S. point of the ſame iland, faile then right with it, and then you ſhall leave the Laverdyn farr enough on the larboard ſide off you. And being come neare the Abbey, anckor a little to the eaſtwards off it in 5, 6, or 7 fathom, there is the road for ſhips that are bound out.

Rock of Rochebon

When you goe into Porthus, and will ſail to the Burnt-Iland, then runne in (as before is ſaid) untill you come neare the eaſt end of S. Martens Iland: from thence the courſe is fouthweſt and by eaſt, or from the Boffe ſouth or ſouth and by eaſt, or with a weſterly wind ſouth and by weſt unto that Iland.

When you faile ſo neare that Burnt-iland that the Tower off Voorn, or the Four, commeth over the Burnt-iland, there you may caſt your ballaſt over board, it is there 12 fathom deepe.

If you muſt turne to and againe with a ſoutherly winde from the Boffe to the Burnt-Iland, or from Burnt-iland to the Boffe, then come not neare the land of Rochell, there lye divers ſtony bancks eaſt alongſt the land, a good wayes from the ſhoare, whereof you muſt take heed. When Rochell is hidden behinde the ſouth point which lieth over againſt the Creeke, there lieth a ſtony bancke, upon which remaineth not a fathom of water.

If you will faile into the river of Sherrant, then runne about to the ſouthwards of Burnt-iland, you may alſo faile about to the northwards of it, and faile in by the Tower of Voorn, or Four. At low water this river falleth dry, at leaſt 4 leagues within the land. For to faile from Burnt-iland to Burwage, you muſt faile away S. S. eaſt and keepe the little Tower off Heers to the weſtwards of the wood, ſo long untill the Tower of Voorn or le Four, come over the little red-tyled houſe, that ſtands upon the S. ſide off the river of Sherrant faile then in S. E. and by little and little S. E. and by eaſt untill that Front (a village that lieth upon the ſtrand) commeth to the N. wards off Soubiſe, when as then Soubiſe commeth within the foresaid village, and the mill above the village, then you ſhall be againſt the point off Oyſterbanck, goe then in alongſt S. E. and by S. ſouth, and bring that outermoſt litle Tower off Heers, over the outermoſt ſandy place, where the gallowes ſtandeth by, keep them ſo ſtanding, and faile in fouthfoutheaſt, when as then the little Tower off Heers commeth to the eaſtſide of the valley, which is in the wood, then keepe that ſharpe litle tower right over the eaſt ſide of the valley, of the wood, and faile in ſo into the Creeke, or river of Burwage. At Burwage was wont not to ſtand a houſe, where now is a ſtrong faire Towne, being builded ſo within 70 or 80 yeares paſt.

The Bannier lieth alongſt the land of Oleron and lieth untill within Burnt-Iland, at low water it is uncovered, and the tayle of it lieth farre to the northwards. If you ſhould turn out from the Creek towards the Burnt Iland, then bring the Tower of Rochell not without the Burnt Iland, before you come thwart of it, becauſe of the Baniard, and then you ſhall take no hurt of it.

At

Baniard.

At the ſouth end of Oleron, betwixt Oleron and the land to the ſouthwards of it, is yet another channell, where men may faile in and out, called the Mamme-ſound, deep enough for great ſhips, it lieth in from out of the ſea eaſt and by n. being come there within, there runneth up a river ſoutheaſt towards Sales, where men doe lade ſalt, being paſt that, to the other point of the Mamme-ſound, lieth a plate, whereof men runne to the northwards upon theſe marks: you muſt keepe the mill that ſtandeth upon the lands of Oleron over the trees, and ſo you ſhall run to the northwards of the plate, there is the road for them that wil lade ſalt at Oleron or Olderdorp.

Mamme-ſound.

But if you will runne in through, and out againe, then you muſt faile ſo farre to the eaſtwards, untill that Sales come over the trees, which ſtand within Merven, for to avoyd the tayle or riffe that ſhooteth of from Oleron: when Sales commeth over the trees, ſayle then north and by weſt on, to the Burnt-Iland, but bring Duke Charles Tower to the S. ward of the Burnt-Iland, for not to faile within the Banniard. When the litle Tower of Heers commeth to the wood keepe it then ſo ſtanding until Rochell commeth over the North-ſide of the Burnt-Iland, ſayle then out at the Portruth. There ſhooteth of alſo a riffe from the weſt end of Saint Martens Iland, whereof you muſt take heed.

About ſouth, or a little more weſterly thirteene leagues from the Iland Uſe, ſouthweſt and by weſt from the Iland S. Martens, and w. n. w. or ſomewhat more northerly from the River, of Burdeaux, lye the Rockes of Rockedon, or Rochebon, of ſome called Urkamia, in forme of a Trevet or Brandize. The ſouthermoſt of the three is the ſhowldeſt, whereupon remaineth at low water about two fathom depth: At the ſouthweſt ſide the ground is black little ſtones, and at the N. eaſt ſide white ſand, but you may not come neare them by your lead found by them.

A little to the weſtwards, not farre from the foresayd rocks, lyeth yet another rock, whereupon is at low water 5 fathom water, nevertheleſſe with a ſtorme the ſea breaketh terribly upon it.

Of the depths and grounds about theſe places.

At Abberwrack and eaſthortheaſt & weſtſouthweſt moone maketh full ſea. Without Vſhant a weſtſouthweſt and e. n. e. moone, and within the Trade a ſ. w. and by weſt moone maketh full ſea.

At S. Matthewes point, a ſouthweſt and northeaſt moon maketh higheſt water.

In the broad Sound, betwixt Vſhant and the Seames a weſtſouthweſt and eaſtnortheaſt moone maketh the higheſt water: The flood falleth very ſtrong upon Vſhant, and to the ſouthwards of it through the Mullens. Thwart over the Trade, towards the Backowns. Likewiſe in through the broad Sound unto Brell. Alſo alongſt by S. Matthewes point towards the Fourne, or backovents, with very great rippling. He that commeth ſayling about Vſhant, muſt reckon the ſame.

In the Race of Fontenay a ſ. w. and by ſ. and n. e. and by n. moon maketh full ſea. The flood falleth very ſtrong thorow betwixt the Keyſer, ſomwhat thwart over towards de Lavender, with very great rippeling over the Caſſe, (that is the ledge of ſhoals, which lyeth of from the Lavender) and from thence forth n. and n.and by w. inwards to S. Matthewes point: with calms men muſt take very good heed not to be miſcaried away with the current. With ſtormy weather out of them, or let is not without danger to come in this channell, eſpecially with an ebbe or eaſt ſail.

On theſe coaſts of Britaigne, and the Iland thereabouts, a ſ. w. and n. eaſt moon maketh the higheſt water: but within the havens, rivers, indraughts, & bayes, a ſ. w. and by w. and n.e. and by e. moone, or a point later, according as the havens or rivers doe lye deepe in the land. Men doe not reckon there any feeling or running of the ſtreames, for the flood commeth (through the ſwelling of the great Ocean) right againſt the coaſts, and ſo runneth onely into the havens, the ebbe contrariwiſe goeth ſtreight from the ſhore ſo ſeawards, when it falleth: ſothat men cannot perceive any courſe of ſtreames except it bee a little through, or about ſome points of Iſlands.

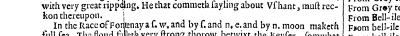
On theſe lands, as on all the coaſts of Britaigne, a northeaſt and ſouthweſt moon maketh high water and within the havens, rivers and in-draughts, a point or two later according as they lye far within the land.

On the coaſtes and Iſlands a ſ. w. and n. e. moone maketh high water, within the land

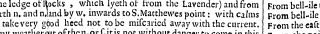
Of the depths about the places, and in what depthe men may ſee the land.

Thwart of Abberwrack 5 leagues from the land, it is deep 40 and 45 fathom.
The Backowns, or the land of the Fourne men may ſe in 30 fathom.
Vſhant being about 5. from you, you may ſee in 30 fathom.
Southweſt from Vſhant 5 or 6 leagues of it is deepe 75 fathom, and then you may ſee the land from the poop.
In the broad Sound it is 45 fathom.
A little without the Seames, about 3 league, it is deepe 50 fathom.
Men may ſee the Seames and the Sheete, or Sleeplaken, in 60 or 65 fathom.

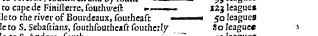
How theſe Lands doe ſhew themſelves at Sea.



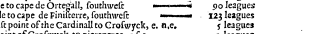
When Vſhant is fouth and by weſt from you 4 leagues, it ſheweth it ſelfe in this forme



Vſhant, being ſouth and by eaſt from you 4 leag, ſheweth it ſelfe thus.



When Vſhant is northnortheaſt from you, it ſheweth thus.



Vſhant, being S. and by E. from you 3 leagues, ſheweth it ſelfe thus.

Berwixt Vſhant and the Seames *in the fareway* it is deepe 55 fathom.
Thwart of the Pennes and the Glanons men may ſee the land in 55 and 60 fathom.
Bell-Ile men may ſee from below in 55, but under the top in 60 fathom.
Without Vſe it is 35 fathom deep, and then men may ſee the land from below: when it is cleare weather men may ſee it in 60 fathom.
The land of Oloine men may ſee it from below in 45 and 50 fathom.

S. Martens Iland and the north end of Oleron men may ſee in 28 and 30 fathom. When men get ſight of S. Martens Iland, they ſhall ſee upon it a high Tower, with a high houſe, and upon the ſtrand a mill with foure or five high ſand-hills. Upon Oleron men ſhall ſee a high ſpire Tower, upon a red point, wherevnto ſhall ſee ſome threes ſtand over it and to the ſouthwards of it, as at two or three places ragged ſand-hills.

How theſe lands doe lye one from the other, and from other lands.

From Ile de Bas, to the fourne, weſtſoutheweſt	16 leagues
From the Fourne to S. Matthewes point ſ.ſ.e. and ſ. e. and by ſ.	4 leagues
From S. Matthewes point to Croydon, or Claeſdowne e.ſ.e.	3 leagues
From S. Matthewes point to the Race of Fontenay, or the Keyſer, ſouth and by eaſt	5 leagues
From Vſhant to Portland northeaſt	53 leagues
From Vſhant to the Steare northeaſt and by north	40 leagues
From Vſhant to the Lizart north	29 leagues
From Vſhant to Silly northweſt and by north	37 leagues
From Vſhant to cape Cleare in Ireland northweſt	84 leagues
From Vſhant to the Iland of S. Michels, ſouthweſt and by weſt	300 leagues
From Vſhant to the cape Finiſterre ſouthſouthweſt weſterly	113 leagues
From Vſhant to Cizarga ſouthſouthweſt	77 leagues
From Vſhant to cape Prior ſouthſouthweſt	160 leagues
From Vſhant to cape de pinas ſouth	97 leagues
From Vſhant to Laredo ſouthſoutheaſt	115 leagues
When men ſayl away ſouth and by eaſt from Vſhant, then they run a little without the Seames	
From the Race of fontenay to the pennes ſoutheaſt	9 leagues
From fontenay to Oldyarne eaſtſoutheaſt	5 leagues
From Oldyarne to the pennes ſoutheaſt and by ſouth	5 leagues
From the weſtend of the Seames to the pennes e. ſ. e. ſomewhat ſoutherly	13 leagues
From the Seames to the Band or Cragge of Oleron ſouthe, & by e.	112 leagues
From the Seames to the bayone in France ſoutheaſt	122 leagues
From the Seames to S. Sebaſtians ſoutheaſt and by ſouth	121 leagues
From the Seames to Bilbaw ſouthſoutheaſt, eaſterly	110 leagues
From the Seames to S. Andero ſouthſoutheaſt	90 leagues
From the Seames to cape de pinas, or Tores, ſouth	88 leagues
From the Seames to Ribadeus, ſouth and by weſt	93 leagues
From the Seames to cape de Ortegall, ſouthſoutheaſt ſoutherly	90 leagues
From the Seames to cape Finiſterre ſw. and by ſouth, ſoutherly	111 leagues
From the Seames to Silly, northnortheaſt	45 leagues
From the pennes to the Glanons, the courſe is eaſtſoutheaſt	1 leagues
From Glanons to Gloyland to Grey, eaſt and weſt	9 leagues
From the caſt end of Groy to the weſt end of Bell-Ile, the courſe is ſouthe-ſoutheaſt.	5 leagues
From Glannons, or Gloyland, to Bell-Ile, ſoutheaſt and by eaſt	12 leagues
From the northweſt end of Bell-Ile to the ſoutheaſt end, the courſe is ſoutheaſt and by caſt	5 leagues
From the pennes to bell-ile eaſtſoutheaſt	31 leagues
From the eaſt end of bell-ile to the eaſt end of the Cardinall, eaſt and by north	4 leagues
From the caſt point of the Cardinall, to the entring of Morbeam northnorth-weſt	4 leagues
From the pennes to Viverus, ſouthſoutheaſt	88 leagues
From the pennes to Cizarga, ſouthweſt and by ſouth	104 leagues
From Groy to Viverus, ſouthweſt and by ſouth	93 leagues
From Grey to cape de Finiſterre, ſouthweſt	123 leagues
From Bell-Ile to the river of Bourdeaux, ſoutheaſt	50 leagues
From bell-ile to S. Sebaſtians, ſouthſoutheaſt ſoutherly	80 leagues
From bell-ile to S. Andero, ſouth	73 leagues
From bell-ile to cape de pinas, or Tores ſouthſoutheaſt	80 leagues
From bell-ile to cape de Ortegall, ſouthweſt	90 leagues
From bell-Ile to cape de Finiſterre, ſouthweſt	123 leagues
From the caſt point of the Cardinall to Crofuyck, e. n.e.	5 leagues
From the point of Crofuyck to pierepece, e.ſ.e.	3 leagues
From the Cardinall to Old-downes, e. n. e.	7 leagues
From the north point of the river of Nantes, to the picqueliers, e. ſ. e.	7 leagues
From Pierremen to Armoniers weſtſoutheaſt	2 leagues
From Armeniers or Pickellers to the weſt end of Vſe, ſouth and by eaſt and ſouthſoutheaſt at leaſt	7 leagues
From the eaſt end of bell-ile to Vſe, ſoutheaſt eaſterly	36 leagues
From Vſe to the Barges of Olone, eaſt and by ſouth	7 leagues
From Vſe to the Killiaets, or S. Martens Iland, e.ſ.e.	12 or 13 leagues
From Vſe to cape de pinas, ſ. w. and by ſouth	75 leagues
From Vſe to cape de Ortegall, ſ. w. and by w.	93 leagues
From Vſe to S. Martins Iland, or the Killiaetes, the courſe is e.ſ.e.	12 or 13 leag.
From Vſe to Portruth, or the Band of Oleron, the courſe is ſoutheaſt and by eaſt	15 or 16 leagues
From the Band or Craghe of Oleron to the Tower of Cordan ſ. ſ. e. and ſouth and by eaſt	13 leagues
From S. Martins Iland to the tower of Cordan, or the river of Bourdeaux, ſouthſoutheaſt	16 leagues
From S. Martens Iland to cape de pinas, S. w.	80 leagues
From S. Martens Iland to Ortegall, the courſe is weſtſoutheaſt ſomewhat ſoutherly	99 leagues

Heights.

Vſhant lyeth in	48 degrees 30 minuten
The Seames lye in	48 degrees 5 minuten
The Iland bell-ile lyeth in	47 degrees 40 minuten
The Iland Vſe in	46 degrees 48 minuten
The north point of Oleron in	46 degrees 15 minuten

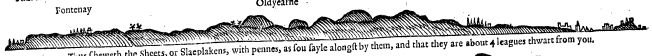
Thus sheweth Vshant, being southeast from you 4 leag.

Vshant, being from you 2 or 3 leagues sheweth it selfe thus.

Fontenay

Oldyearne

The Pennes.



Thus sheweth the Sheets, or Slaeplakens, with pennes, as you sayle alongst by them, and that they are about 4 leagues thwart from you.

Vshant, being e.& by s.and e. s.e.3 or 4 leag. from you, sheweth it selfe in this forme.

Thus sheweth Vshant, when it is e.and by s. from you 4 or 5 leagues.

When Vshant is 4 leagues east from you, it ariseth in this forme.

Vshant being e.n.e.and by e. from you 5 leagues ariseth thus.

Vshant, being e.n.e. from you 2 or 3 leagues, sheweth it selfe thus.

Vshant being eastnortheast and by east from you, so farre as you may even see it from below, ariseth in this forme.

Vshant being n.e.and by e.3 or 4 leagues from you, sheweth it selfe, as is here demonstrated.

Thus sheweth the land of Glanons, when you sayle alongst by it.

The land to the eastwarde of Gloyland or Glanons sheweth thus, when you sayle alongst by it.

Thus sheweth the west point of Groy, when it is 3 or 4 leagues northeast from you.

When the Tower of the Iland S. Marten is s.e. 3 leagues from you, then the land sheweth thus.

When Groy is northnortheast from you 4 leag. it sheweth thus.

Thus ariseth bell-ile, when the n.w. end is east from you 4 leag.

When bell-ile is northeast from you 4 leagues, it sheweth thus.

When the northwest point of bell-ile is east and by north from you 4 leagues, and the southeast point is east and by south, and east southeast, then it sheweth thus: when as you sayle towards it, and you come neare the land, then the peeces which lye of from the northwest end, at last come to be fast unto bell-ile.

Heys, being southeast and by south from you, that a man may see it from the Compagne, sheweth out of the Marsle thus.

Heys, being northeast from you, sheweth thus.

Thus sheweth the land Vse or Heys, when you saile alongst by it, being two leagues of from it.

Olone.

Heys being e.s.e. from you, and that a man may see the tower from the Compagne sheweth thus; and you are then upon 31 fathom depth.

Thus sheweth te land of Poicton betwixt Heys and the Ilands of S. Martens, when you sayle alongst by it 4 leagues a seaboard the land.

A

This coast lyeth southsoutheast.

Thus sheweth the west end of the Ilands of S. Martens.

This belongeth to the former figure from the west end of S. Martens Iland, and sheweth it selfe thus, when the steepleis east and by south from you 3 or 4 leagues of, the coast lyeth here eastsoutheast, and westnorthwest.

La fos de Loys. S. Marten. Abbey. S. Iohn.

When S. Martens Iland is north and by east from you it sheweth it selfe thus.

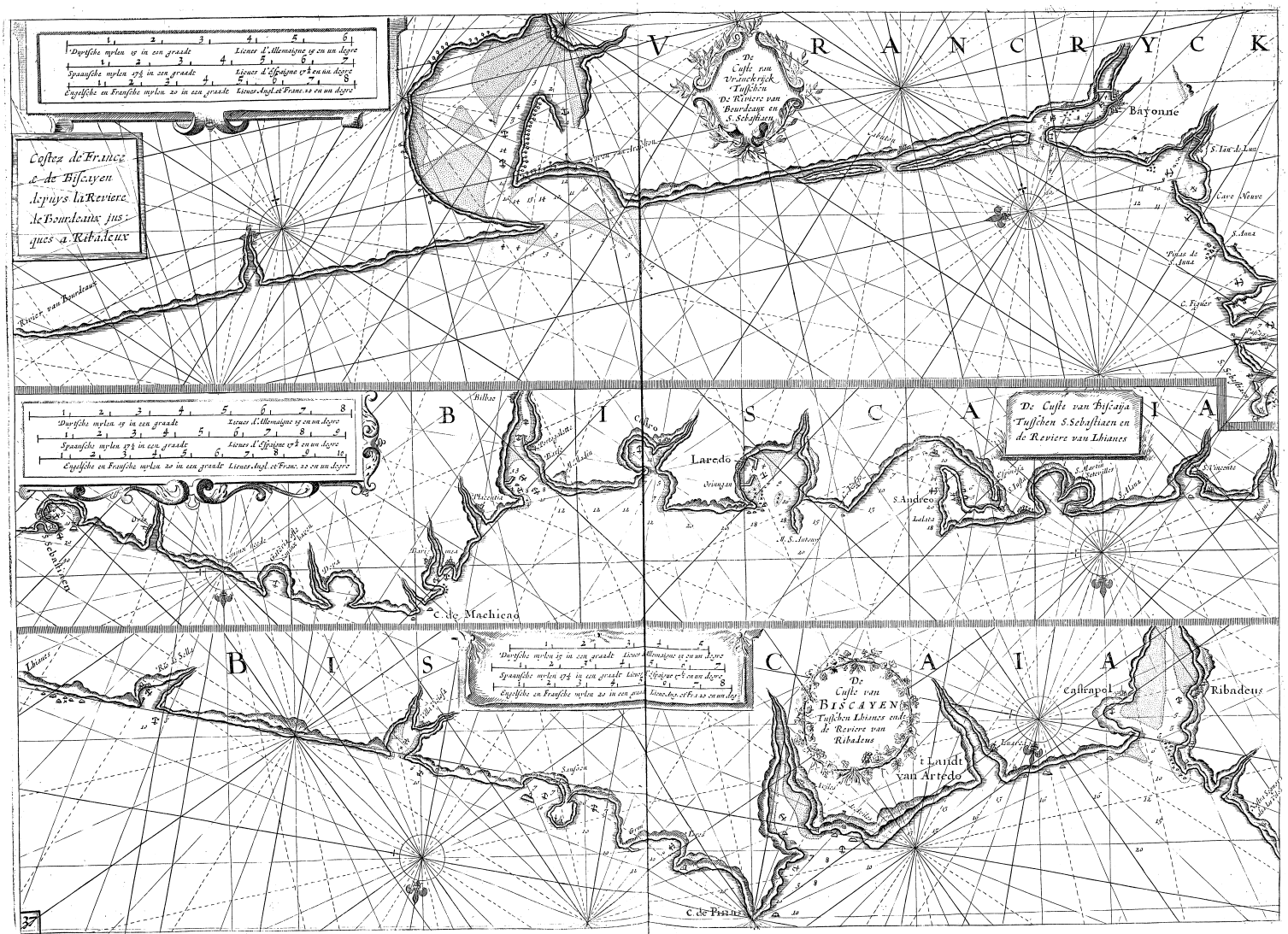
When men sayle out or in at Porthus, S. Martens Iland sheweth it selfe in this forme.

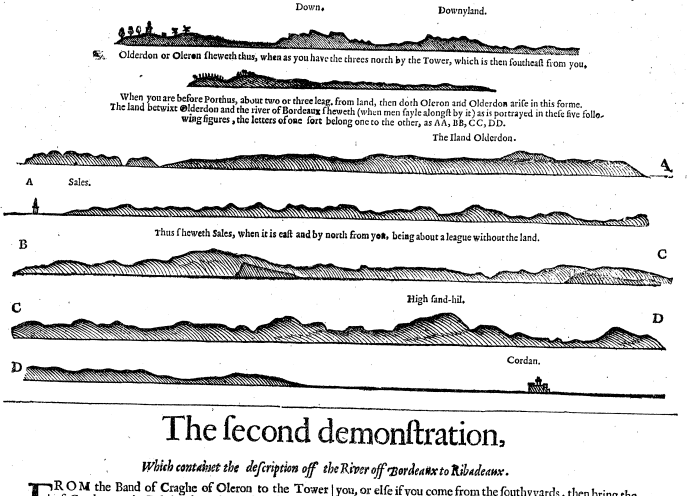
S. Martens. S. Maria.

Thus sheweth the south side of S. Martens Iland, when the Tower or west end is north, and the east end northeast three or foure leagues of from you.

The west point of Oleron, or Olderdon, sheweth it selfe thus, when it is east from you two great leagues, Thereabout it is twenty fathom deepe.

Olderdon


Duytsche mylen 15 in een graade Lieues d'Allemaigne 15 en un degre
Spaensche mylen 17½ in een graade Lieues d'Espaigne 17½ en un degre
Engelsche en Fransche mylen 20 in een graade Lieues Angl. et Franc. 20 en un degre
Costen de France en de Biscayen depuys la Riviere de Bourdeaux jusques a Ribadeux
Riviere van Bourdeaux
De Custe van Vranckryck Tusschen De Riviere van Bourdeaux en S. Sebastiaen
V R A N C R Y C K
Bayonne
S. Jan de Luz
Cave Nouve
S. Anna
Pinas de Juna
C. Figuier
S. Sebastiaen
Bilbao
Laredo
S. Andreo
S. Martin
S. Vincente
De Custe van Biscaya Tusschen S. Sebastiaen en de Reviere van Lhianes
B I S C A I A
C. de Machicao
Lhianes
S. Sebastiaen
Sanssen
C. de Pinas
De Custe van BISCAYEN Tusschen Lhianes ende de Reviere van Ribadeus
t Landt van Artedo
Castrapol
Ribadeus
37



The second demonstration,

Which containeth the description off the River off Bordeaux to Ribadeaux.

FROM the Band of Craglie of Oleron to the Tower of Cordan, or the Pole head, or the mouth of the River of Bordeaux, called the Garrone, the land lyeth southeast, and southeast and by east 13 leagues.

To the northwards of the mouth of the river of Bourdeaux, lye five or six high white Sand-hilles, but to the southwards of it, it is somewhat low land, blacke litle Sand-hilles, being growne with spiry grasse.

From the Tower of Cordan of the northwards, towards the high Sand-hilles, which lye upon the north land lyeth a sand-bancke, called the Piper, men may sound alongst by it on the west side in seven fathom, but upon the northend is very steepe, and not farre of it is twenty fathom deepe. Piper

From the north point of the River runneth of to the southwards, a sand called the norther Asses, and to the southwards of it lyeth another sand, called the souther Asses, thorow betwixt them both, and also alongst to the southwards of them, men may saile into the River. Norther and souther Asses

If you will saile into the River comming from the northwards, then you may run alongst by the shore in 12 and 13 fathom, untill that the Tower of Cordan stand southeast and by east from you, runne then right in with it, through betwixt the norther and souther Asses, untill that the high white sand-hil upon the north point of the River stand northnortheast from you, men may so (comming from the northwards) runne in also about by the norther Asses, by your lead, untill that the Tower come to be southsoutheast, and southeast and by south from you, then goe towards the Tower, and when the foresayd high sand-hil come to be northnortheast or northeast and by north from you, sayle then right in with it, untill that you have the sounding of the land, run then in alongst by it, towards Messie, that is the point where all the mils stand. When you shall saile thus towards the high sand-hill, and that the Tower of Soulack commeth a great fathom to the northwards of the Tower of Cordan, and the litle mill of Royan then are you also past the Piper, and may run in right east vvithout feare towards Royan, but you must reckon well your tyde, for the flood falleth thwart over the Asses towards the Tower of Cordan, and the ebbe in the contrary. Royan

In this foresayd channell through betvvixt the Asses remaineth at lovv vvater 3 fathom water upon the shouldes.

For to sayl into the river alongst to the southvvards of the Asses, comming from the northvvards, (that is, the best channel) you must do thus: Bring the Tower of Soulacke east from you, or somewhat more northerly, and saile in so right vvith it, untill the tovver of Cordan be north and by east, and northnortheast from you, Royan shall then stand northeast from you, or else if you come from the southvvards, then bring the tovver of Cordan north and by east, and n. n. e. from you, and sayle in so right with it, untill Soulack come to be east from you, Royan shall then stand N. east from you, saile then right towards it, and comming neare it, saile to the point of Messie.

When you are novv vvithin the Rivers mouth, and come right against the point of Messie, that is the point vvhere the Mills stand upon, then edge over towards the broken Castle, called Chastillion, s. e. and by south, that is, eight leagues from Messie, and then forth in alongst by the south land, southeast in unto Pouliack, which is two great leagues. Chastillion Pouliack

In the fareyvay betwixt the Piper and the point with the Mills, or Messie, it is 10, 11, and 12 fathom deepe, but out of the fareway, either on the north side, or south side, it is shouldy to wit, 5, 6, 7, and 8 fathom, you must runne alongst close by the point of Messie, there it is 22 fathom deep.

When as that Royan commeth to the west point, whereupon the mils stand, keep it so standing, and go away southeast and by south towards Chastillion, it is in this fareway allmost all alongst 5 fathom deep, but comming neare the north or south side, it is shouldy, and at the north side it is full of sands, where also men may vvel saile through that are acquainted.

From Chastillion to Pouliack it is 2 great leagues S. east, the course is as before is said, and it is there deep 4, 5, 6, & 7 fathom. Over against Pouliack in the midst of the River lieth a litle Iland to the eastwards, men must runne about it, right in with Bloy, but there men must goe over with the tyde, for it is there at low vvater but a litle more then one fathom deep. Pouliack

When you are before Poulick, and wil saile to Bloye, then let the vvater first flow an houre, and then you may vvell goe over with a ship that draweth nine or ten foote vvater. The markes for to saile alongst in the deepest water of this reach, are these: there standeth a mill halfe wayes betwixt Bloye and Rocktaw, keepe that without the new wall of Bloye, and then you shall run in the deepest of the Channell.

Before Bloye it is againe three or foure fathom deepe, runne then alongst by the north land in three, foure, and five fathom. When you come before the River vvhich lieth up to the eastvvards called Dordoigne, then sayle first right vvith the middest off the fecond Iland, and leave it on the starboard side, and go indifferent neare alongst by it, untill that you be over against or past the Gollowes, which standeth upon the east poynt off the River: and then againe alongst by the northland unto the foure little houses. From thence you must edge over to the high Tower of Dublot or Pigeonhouses, comming thwart of it, you must presently edge over again to the east side, to the hight neare Lermond, in Bloye.

that edging over, you shall runne through betwixt a stone banke on the larboard side and a fhowld sand-plate on the ſtarboard ſide, over a banke called the Pace, which is the fhouldieſt of all the river, there remaineth at low water a little leſſe then a fathom. Being come over the Pace to the eaſt ſide, goe then in alongſt by the eaſt ſhore, untill you be paſt Lermond, then faile againe over to the weſt ſide, right with the houſes of Charterhouſe, and then in all alongſt by the weſt ſhore, untill you come before the towne of Bordeaux, in that crooked reach betwixt Larmondt and Charterhouſe it is 5, 6, and 7 fathom deep, and before the town 4 and 5 fathom.

The pace

When men will ſayle out of the river of Burdeaux, they muſt ſtay at Royan untill the have good weather, and a fore-ebbe to run out with: in running out, keepe the high ſand-hill northnortheaſt from you, ſo long untill that the tower of Cordan be ſoutheaſt and by eaſt from you, then you may ſayle out through the Aſſes northweſt and by weſt into ſea.

From Cordan, or the river of Burdeaux, unto Arcachon, the coaſt lieth ſouth and north twenty leagues, it is all low ſandy land, betwixt them both lieth a tyde-haven called Anchiſes, men may goe in there well at high water with great ſhips.

Before the haven of Arcachon, or Arcaſon, lie three ſhowlds, men may ſayle into the northwards of them, and alſo into the ſouthwards of them: the norther entry goeth in betwixt the northmoſt ſhowld, but it is narrow and not deep. The ſouther entrey lieth to the ſouthwards of all the ſhowlds by the ſouther poynt, in betwixt two ſhowldy ſand-bankes, whereof the one lieth off from the ſouthermoſt ſhowld, and the other from the ſouth point of the maine land, ſouthweſt and by weſt into ſea. The land to the northwards of this haven is altogether ſomewhat low ſandy land without trees, but to the ſouthwards of it there are all ſomewhat high ſand-hills without trees alſo, but comming before the havens mouth, you ſhall ſee within in the northwards or the ſouthwards, neare about this havens mouth, you ſhall eaſily eſpy the foreſaid bankes on both ſides of the ſouther entrey, by the breaking of the ſea, and you may borrow off them by your lead, as neare as you pleaſe, they are very cleane and flat. Upon the ſandhills within the havens mouth, ſtand two great high maſts, if you will ſayle in there, then bring the two Maſts one in the other, and then they ſhall ſtand northeaſt and by eaſt from you, keepe them one in the other, and ſayle in ſo right with them, and you ſhall ſo ſayle in betwixt the two foreſayd bankes, and at low water you ſhall not finde leſſe then two fathom water, but at high water you ſhall have five and a halfe, and ſixe fathom water, go in ſo upon the markes, untill you come within the ſhowlds, and to the end of the ſhowld-ſand on the larboard ſide. Being gotten in within it, you muſt luffe up about by it, and goe then on north untill you come to the point, which you ſhall ſee on the ſtarboard ſide, but give that a birth, becauſe there runneth off a rayle, there is in that reach no leſſe then ten, eleven, or twelve fathom deep. Being come about that point, you may then faile in cloſe alongſt by the land on the ſtarboard ſide, which lieth eaſt ſoutheaſt, or you may anckor there in fifteen, fifteen, twelve and ten fathom, or further in about the ſecond poynt, in two and three fathom. Over againſt the firſt point, on the north ſide, it falleth very far dry, a great waies within.

Arcaſon.

For to fail into the haven of Arcaſon.

From Arcaſon to Bayone, the coaſt lieth ſouth and north ſixteen or ſeventeene leagues. The Rivers mouth of Bayone lieth in betwixt two plaine ſtrands eaſtſoutheaſt, and eaſt and by ſouth, and ſometimes more eaſterly or northerly, by reaſon of the ſhifting and altering of the ſands before the Rivers mouth. Upon the land on the ſouth ſide of the channel, ſtand two maſts, theſe you muſt keepe one in the other, or the innermoſt a little to the northwards of the outermoſt, and run ſo in over the Barre or ſhowldieſt place, untill you come againſt the ſouth point, and then in alongſt by it. Upon the foreſaid Barre is at high water and Spring tyde, at leaſt three fathom, with an ordinary tyde two fathom and a halfe, but at low water no more then 3 foot water. When you come about the point, you muſt faile up to the ſouthwards, keeping about the middle of the channell alongſt the river, or rather neareſt the weſt ſide, for to avoid ſome foule ground and ſhowlds, that lie on the eaſt ſide, and anckor before the town in 4, 5, or 6 fathom. This Bar and this River is Pilots water.

bayone

A little within this Barre on the north ſide of the river lieth up to the northwards a great water within, of 7 leagues long, and falleth out into Sea by Cabritton. Alongſt that great water the ſhips were wont to faile up to Bayone, but it is now upon the ſouth end at the river of Bayone almoſt altogether paled too, ſo that there can but ſmall barkes goe through, for to keepe the better the Barre of Bayone deepe with ſcowring through of the water.

From the Barre of Bayone to S. John de Luz, the courſe is ſouth and by weſt 4 leagues, there is a faire Bay where men may ride in five, ſixe ſeven or eight fathom, according as they will lye farre in, cleane ſandy ground, at the end of the Bay is a little tyde-haven, where upon lieth the towne on the weſt ſide. At high water, and with an ordinary tyde there come ſhippes 300 tunne, but with a ſpring twelve foote water, at low meth nine foote, but with a ſpring twelve foote water, at low water it falleth altogether dry, ſo that men may goe over there with drie feete. A little within the weſt point of the Bay is alſo a litle Dock, where there is a foot water more then in the foreſaid tyde-haven, but it falleth alſo dry at low water.

This Bay is very good to known by theſe marks that hereafter are written: It lieth right in the Bight, to the eaſtwards of it lieth the land north and by eaſt towards Bayone, and to the weſtwardes of it the land falleth away ſouthweſt and by weſt, and ſouthweſt towards Fonteravia. Upon the eaſt point of the Bay ſtandeth a white Fire-tower which men may ſee farre off, eſpecially when the Sunne ſhineth upon it, then it ſhineth very white more then the other land. Upon the weſt point ſtandeth a flat white houſe a little wayes upon the high land, and to the weſtwards of the Bay it is upon the ſea ſide gray and bleweiſh land. Alſo the high hill of S. John de Luz, is gray and bleweiſh land. Alſo the high hill of S. John de Luz, is a good marke for to know this Bay, which remaineth in ſayling in, lye ſomewhat to the eaſtwards, or on the larboard ſide. This foreſaid hill of S. John de Luz ſheweth it ſelfe out in height above all other hilles thereabouts, and thereby is very good to be knowne: above upon the top it is ſomewhat flat, as is demonſtrated in the riſing of the lands. Upon this foreſaid hill ſtandeth a Chappell, from whence men may ſee into foure Kingdomes: France, Spaine, Navarre and Arragon.

About two leagues ſouthweſt and ſouthweſt and by weſt from S. John de Luz, lye the rocks called the Figmons of S. Anna, not farre from land: a league to the weſtwards of them, lieth the Bay of Fonteravia, being a faire Bay.

Figmons of S. Anna

At the weſt point of the Bay lieth the C. Figuer, a high point, upon it ſtandeth a caſtle, an to the ſouthwards of it a little chappell. At the point of this cape lieth a rock a litle wayes from it, but the ſea cannot run through betwixt them, except it be with very high floods, it breaketh a little through. At the eaſt ſide of this bay lie two high rocks, and thwart of them lie alſo ſome low rocks a good wayes off from the land. To avoid them you muſt faile in by the weſt point for to come into this Bay, and being within it, you may anckor in eight or nine fathom, but ſo that the foreſaid great rock at the C. Figuer ſtand north n. w. from you, then you lie in faire fandy ground, and landlockt for a northweſt winde. The Krooſenenbrough lieth about halfe wayes betwixt S. John de Luz and this foreſaid Bay of Fonteravia.

Krooſenenbergh.

A little league to the weſtwards of C. de Figuer, lieth Paſſage alſo a faire haven. At the weſt ſide of the havens mouth, which is very narrow, lieth a round rock, ſo that it is evill to come in there with an ebb, but with a flood it is better, without it is very cleane, without any ſhowlds or ſowle grounds but onely the foreſaid rounde rocke. The towne lieth a little within the haven on the weſt ſide, where men doe lie before it in 7 fathom.

Paſſage.

Two great leagues to the weſtwards of Paſſage, lieth S. Sebaſtians, betwixt both is alſo a fand-bay in a bight, where S. Sebaſtians. in many Barkes.

The haven of Saint Sebaſtians is good for to come into, men doe runne in there betwixt two litle caſtles, where of the eaſtermoſt is te great, ſtanding upon a high hill. The weſtermoſt is a litle ſquare tower, and lieth upon a litle land, or rock. In the havens mouth being narrow, betwixt the two foreſaid litle Caſtles, lieth a rocke, which at low water is ſixe fathom deepe, and when it is a ſtorme out of the ſea, it breaket all wayes upon it, and lieth neereſt the eaſt-land, by the weſt-land it is deepe ten fathom. Now for to avoid the foreſaid rocke in comming in, there commeth an Abbey to the eaſtwards of the weſtermoſt Iland, and a little Tower. If you keepe them one in the other, then you run into eaſtwards of it.

For to anckor without S. Sebaſtians in the road, you muſt keepe the high hill which lieth upon the point of Cape Figuer, without the foreſaid eaſtermoſt caſtle, there you may anckor but if the ſame come to be hidden behind the caſtle or Iland, then you may not anckor in the road of Saint Sebaſtians. When you are come through the narrow within the rock and the caſtles, then you may anckor at the eaſt ſide under the great caſtle, there is the beſt road. Within the foreſaid caſtle goeth up a little water, men may goe at low water a foot from the eaſter caſtle alongſt a high ſtrand upon the maine land, unto the Towne, which lieth behinde the forefayd high hill with the Caſtle, yet the ſtrand at high water is covered; it is a bay, and within before the towne it is deepe five, ſixe, and ſeven fathom, at the weſt ſide under the little Iland, men may not anckor, becauſe it is flat and ſhowld there.

He that will goe forth from thence into S. Sebaſtians, let him run in, keeping the middle channell, betwixt the two Ilands, and let him leave the little Iland where upon the chappel ſtandeth on the ſtarboard ſide, running in ſo right againſt the firſt or the ſecond wall of the towne, and anckor there, the bots or ſhallops ſhall come aboard of him, and helpe him into the haven betwixt the walles.

A league to the weſtwards of S. Sebaſtians, lyeth a ſandbay, where men may anckor ſo deep and ſo ſhallow as they will.

Gateria.

From S. Sebaſtians to the C. de Matinchaco, the courſe is W. N. W. 13 leagues. Betwixt them both lye the roades Gateria and Deva.

Gateria lieth from S. Sebaſtians weſt and by north, and W. N. W. diſtant 8 leagues, being a faire round fandbay, where is good riding for welterly winds, men lye there within the weſt poynt right before the Towne, in faire fandy ground, a north winde commeth right from the poynt. This bay is commonly called Kings-haven.

Alongſt the coaſt of Biſcay, betwixt S. John de Luz and Gateria is every where clean ground and good anckoring in 20 fathom.

From Gateria to Deva it is a league and a halfe to the weſtwards, which is an off-water that cometh out of the high land.

Two leagues to the weſtwardes lieth the poynt of Cape Martinchaco.

Barmea.

About thirteene leagues weſtnorthweſt from S. Sebaſtians, lyeth the Cape de Martinchaco, a litle to the weſtwardes of it is a good tyde-haven, where in lieth a litle Towne about a league within the land, upon a river which commeth out of the high land. A litle to the weſtwards of Cape de Martinchaco, lieth a great rock faſt the land, and a litle to the weſtwards of the ſame, another: upon the point called Punte de A villanes. Southweſt and by weſt from Martinchaco lyeth the haven of Barmea, a faire great Bay, the eaſter poynt is foule, therefore men muſt give it a good birth, and run in alongſt by the weſt ſide, when they are gotten in it is large enough, there they may anckor where they will.

Placentia.

To the weſtwards of Barmea, lieth alſo Placentia upon a litle River, the towne lyeth a litle within the land. There are all tyde-haven.

From Cape de Martinchaco to Bilbao, (where betwixt lye the foreſaid havens of Barmea Placentia) it is ſouthſouthweſt and ſouthweſt and by ſouth 7 leagues.

Bilbao.

From Placentia to Bilbao it is two leagues weſtſouthweſt and weſt and by ſouth. Bilbao lieth upon a great river, alongſt which there commeth much Iron, it is a good haven, but it lieth not farre in, by reaſon of the Barre which lieth thwart over the haven, where men muſt goe in with high water.

At the eaſt poynt of Bilbao ſhooteth off a riffe, which men muſt avoyd, there lye alſo ſome rockes under water. It is a high ſteepe poynt, and is white to ſee to.

Within the riffe that runneth off from the poynt, men may anckor in ſeven and eight fathom; betwixt the poynt and the Piere on the eaſt ſide, there the Pilotes come off which bring up the ſhippes; and there men may lye land-lockt for a north weſt winde. From this foreſayd poynt or road to the Barre or river mouth of Bilbao, it is a league and a halfe ſouth and by weſt, which lieth in by the weſt land, there ſtandeth five or ſixe houſes upon the weſt land, when the two weſtermoſt houſe come one in the other, or when you may ſe through the two eaſtermoſt houſes, which ſtand within in the land, then are you upon the Bar or ſhowld, then goe in ſouth, and ſouth and by eaſt right with the Caſtle Portugaletto, and alongſt cloſe by the Caſtle, and anckor a little within the Caſtle for a weſt winde. But when you are before the Barre, the Pilotes come off and bring you to the Town.

When you lye without in the Bay, then you may ſee Mount Anthony lie weſt and by north from you.

Caſtro.

From the poynt of Bilbao to Caſtro, the courſe is weſt five leagues, that is a good haven for five, ſeven, and eight fathom depth. The narrow of the haven lieth in ſouth, in 10 fathom. But further in the river towards the towne, it is not deeper then 3 or 4 fathom.

S. Antony.

From Bilbao to the hill of S. Anthonies, it is weſt and by north nine or ten leagues. From Caſtro to Laredo, the courſe is weſt diſtand five leagues, upon the weſt ſide lieth the foreſaid hil of S. Anthonies, which is a high hill men may faile in cloſe alongſt by it, untill they come about the eaſt poynt; within it is wide and broad, and a fit haven for great ſhippes, there men may anckor in ſeven or eight fathom. To the eaſtwards over againſt the hill of S. Anthonies, in the middeſt of the ſound, lyeth a rane of rockes under water, where men may ſayle in about it on both ſides, men may eaſily eſpy them, becauſe it doth alwaies breake upon them, within them is the road for ordinary ſhips, a litle before the haven, which is built with a wall: but the great ſhippes lye a little further off in 6 or 7 fathom depth. On the ſouth ſide of the haven is a little tyde-haven, from the ſame there commeth a great riffe ſhooting off from the eaſt ſide, towards the hill of S. Anthonies; within it is two fathom water right before the village, from the village commeth a tayle of ſand, lying thwart out, within it at low water it is a fathom deepe. In the middeſt of the ſound it is nine fathom, and at the poynt of Saint Anthonies 20 fathom deep.

Suncken rocks.

From S. Anthonies hill to Cape de Keſgo it is weſt and by ſouth two leagues, that is a great Cape lying to the eaſtwards of S. Andero: thwart of it is clean ground.

W. C. Keſgo.

From Cape de Keſgo to the weſt poynt of S. Andero, it is weſt and by ſouth five leagues, a little to the ſouthwards of the poynt of S. Andero, upon the eaſt poynt of Sardiuis, is a ſand-bay, there is good anckoring in ten fathom.

S. Andero

From C. de Keſgo to the haven of S. Andero, the courſe is W. S. W. diſtant 2 great leagues. S. Andero lieth within a Bay, there lieth an Iland before the haven, men may goe about it on both ſides, it is deepe 8 and 9 fathom; but to the ſouthward of the Iland it is deep, 5, 6, and 7 fathom, according as men will come neare to the ſtrand, the haven lieth in firſt W. N. weſt. The Iland lieth a great league within the buy: from the eaſt point of the haven, unto the weſt point of the land, it is ſouth and uorth about a great league. S. Anthonies and the weſt point of S. Andero lie one from the other eaſt and weſt, about 5 leagues.

Laredo.

For to know the land when you fall with the land about Laredo, jou muſt know that on the weſt ſide of the haven of Laredo, lieth the hill of Saint Anthonies, which is a very high hill which men may ſee very farre from the eaſt and the weſt, and a little above the towne of Laredo, men may ſee alſo a ſharpe hill like the point of Diamont, or the point of a two hand ſword, further it is about Laredo very high double land, two, three, and 4 or 5 ſome places foure double. The hill of S. Anthonies doth ariſe in two high hommocks, with a valley or ſaddle in the middeſt betwixt them both, within in the land lie alſo two high hills with ſharpe toppes. Above and to the w. wards of S. Anthonies, lieth a piece of land about two leagues long by judgement, which lieth in five hills, the eaſtermoſt is the loweſt, and riſe all higher & higher towards the weſt, ſo that at the laſt to the vveſtermoſt is the higheſt, which goeth off ſomewhat flat downwards towards the vveſt. Betwixt that eaſtermoſt hill & S. Anthonies, lieth a bay about a league long, called the Bay of Port, men cannot ſee theſe foreſaid hills when they are cloſe by the land, but they muſt be a good Wayes off to ſeawards. To the weſtwards of theſe foreſaid hills lieth an other peece of land vvich at the eaſt end is higheſt, and goeth ſloping off towards the weſt end, allmoſt like Portland. Betwixt that point and the five foreſaid hills, lieth an other ſandbay, where about ſtand ſome litle houſes, but by it lie many rockes and fowle ground. Thereabouts within the land lieth the foreſaid high round ſharpe hill in forme like the point of a ſword.

Bay of port.

S. Andero hath but fevv hills that are good to be know, but vvhen men are before the haven, then they ſhal ſee to the eaſtvvards of the towne, a Caſtle upon a high hill, in forme like a Sugerloafe, or abey-crock, and to the eaſtwards of it is much double land of tvvo and three height double. But vvhen men come about the Cape de Keſgo, then they ſhall ſee preſently the caſtle upon the Weſt land.

From S. Andero to Cape de Pinas, the courſe is Weſt or a litle more Northerly 38 or 39 leagues. Betwixt them both ly theſe hevens following.

Firſt the haven of S. Martin, or Setteviles, a tyde-haven lying eaſt and Weſt 4 leagues from S. Andero.

From thence to S. Vincent alſo a tyde-haven is five leagues diſtant: the haven goeth in on the eaſt ſide, from the Weſt ſide commeth ſhooting off a litle river, and in the midſt of the havens mouth lyet a litle Iland, vvhere men may goe in on both ſides.

From S. Vincent to Lhanes, a tyde-haven, the courſe is W. 2 or 3 leagues. Upon the veſt ſide of the haven ſtandeth a little Church: and a little vvithin the haven, lyeth a middle

plate or fand, men muſt go in on the weſt ſide of the land: therefore are all narrow havens, and but little knowne.

From Lhanes to Rio de Sella, the courſe is weſt 5 or 6 leagues: betwixt them both lie alongſt the coaſt many rocks, and within them many ſand-bayes, where men for need might ſave ſhips,

Rio de Sella. Hee that will goe into Rio de Sella muſt looke out for a maſt which ſtands upon the eaſt land cloſe by the ſame men muſt goe in, the weſt ſide is within foule, within the maſt men muſt anckor before the villagie, this is alſo a tyde-haven.

From Rio de Sella to Villa Vitioſa, it is weſt, 9 leagues, this is alſo a tyde-haven, but is clean, the havens mouth lieth in S.S.E. and ſoutheaſt and by ſouth cloſe alongſt by the weſt point of the land, the eaſt ſide is fowle unto the middeſt of the haven: there lieth a rock with a plate right in the midſt of the haven, which a low water falleth dry: ſo ſoon as men are within that rock, they muſt anckor within the rock; upon the weſt ſide lieth the towne, men may alſo ſayle up to it, and anckor there in the ſhowld water.

Sanſon. Seven leagues to the weſtwards of Villa Vitioſa lieth the out-poynt of Sanſon, to the eaſtwards of it lyeth a little Iland, where upon ſtandeth a little Tower. Betwixt Sanſon and the foreſayd little Iland is a good road in ſix or ſeven fathom.

At the weſt ſide of Sanſon is alſo a good road right before the little haven of Sanſon in 6 or 7 fathom.

Gion. To the weſtwards of Sanſon lieth Gion with a Piere or Head that is paled off, under the which the Fiſhermen which dwel there, lay theyr barkes.

Tores. A great league to the weſtwards of Gion lieth the Bay of Tores, a good road for a ſouthweſt and weſt wind in 8 and 9 fathom. Upon the poynt ſtandeth a high tower.

C. de pinas. Three leagues to the weſtwards of Tores lieth Cape de Pinas, where many rockes lye of to ſeawards, a leaſt a halfe league of, ſome doe ſay that men may ſayle through betwixt the poynt and theſe rockes.

From the cape de Pinas lieth off a rane of rockes, lying at the leaſt a halfe league into ſea, ſome ſay that men may ſayle through betwixt the poynt and theſe rocks. But a little within or to the weſtwards off the Cape de Pinas, lieth a great rock, betwixt that rocke and the land men may ſayle through.

When men are within the Cape de Pinas, then lyeth Avilles three leagues from thence ſoutſouthweſt which is a good tyde-haven, where a great ſhippe may goe in at halfe flood, alſo there is a good road before this haven in 6 and 7 fathom.

Avillis. For to ſayle in there, men muſt goe in by the aeſt land, the weſt-land is farre off ſhowld, there ſtandeth a little Chappell upon the eaſt-land, men muſt ſayle in cloſe by it, and anckor a litle wayes within two rockes that lye on the eaſt ſide, a litle within the havens mouth. The towne lieth a league further up. From the weſt poynt runneth off a riffe, and lyeth inwards alongſt the haven, towards the town, ſo that it is there very ſhowld on both ſides. On the weſt ſide without the haven in the bight, lie two great rockes right before the little Church in the Sand-bay, men ſayle round about them, but it is not very cleane: but without the rocks is good anckor ground in 7 or 8 fathom, over againſt the little Church that ſtandeth againſt the high land.

Luarca. From Avilles to Luarca is 6 leagues and from Luarca to Ribadeus W.S.W. 6 leagues, and from Avilles to Ribadeus S. W. and by weſt 12 leagues.

Ribadeus. From the eaſt poynt of the havens mouth of Ribadeus, lieth off a ledge or riffe off rocks towards the weſt ſhoare, you may found in about it in foure fathom, or foure fathom and a halfe: or elſe if you keepe the little towne Caſtropoll even without the poynt, and ſo ſayle right in with it, then you ſhall not come to neere the foreſayd ledge, but you ſhall ſayl far enough alongſt to the w. wards off it. The weſt poynt ſheweth it ſelfe when you come in out of the ſea, like an Iland, upon it at the north end ſtandeth a flat tower, allmoſt like the tower in the Groyne, but not ſo great. About thwart off that Tower lieth a ſuncken rocke a little wayes from the land, you muſt look out for it, and take heed off it, when there commeth in any great ſea, you can eaſily eſpie it by the breaking of the ſea upon it, but not with ſmooth water at the very loweſt water it commeth even with the water. The weſt ſhoare is fowle and rocky: there runneth off to the ſouthwards of the foreſaid Tower alſo a fowle ledge or riffe off rocks, at leaſt halfe wayes over the havens mouth, and at the ſide of it you cannot uſe the lead. When you are paſt the ledge or riffe that lieth off from the eaſt ſhoare, you muſt run in about it, and edge in ſomewhat to the eaſt ſhoare, and ſayle in alongſt by it, untill that you are paſt, or come to the end of the foreſayd ledge or riffe off rockes, which lieth off from the weſt ſhore, as ſoone as you ſhall be paſt it, you muſt luffe up about it towards the weſt ſhoare, for to give the eaſt ſhoare (within the havens mouth) a birth, which is a great wayes within very flat or ſhowld, but on the weſt ſide it is deep water. There ſtandeth a little Tower on the weſt ſhoare a little within the poynt, where the riffe lieth off, which you ſhall ſee when you are come within the weſt poynt, and run alongſt by the riffe, when you get that little tower weſt or thwart of you, then are you at the end of the riffe, then you muſt ſayle towards that little Tower, untill that you come to the weſt ſhoare and run in alongſt by it, untill you come before the Towne, there you muſt lie with an anckor to feawards, and with a cable faſt on the rockes.

Of the Tydes and Courſes of the ſtreames.

Like as on all the coaſtes of France, ſo alſo at the mouth of the river of Burdeaux, maketh high water a fourthweſt and northeaſt moone.

On all the places, and before all the havens of theſe coaſt, a ſouthweſt and nozheaſt moon maketh the higheſt water; but within the havens about point Iaxe, according as they lye deepe within the land, like as on the coaſts off Britaigne, Poidou, and Gaſcogny. Men reckon here alſo no falling or letting of the ſtreames. But the ſtreames fall here ebwart of and on.

Of the Depths.

The land againſt the River of burdeaux men may ſee from the poop in 30 fathom, and the Tower of Cordan in 27 fathom.

Betwixt Arcaſon, and S. John de Luz, men may ſee the land in 30 fathom, when men are about bayone, they ſhall ſee Cabritton, bayone, bedert, and S. John de Luz, almoſt all flat Towers.

Being before Paſſage, men may ſee alſo the point C. Figuer, and S. Sebaſtians, the land lyeth in there with a great bay.

About cape de Figuer lyeth a high hill, which at the ſouthweſt end is very ſteepe, and goeth very long ſloping down towards the north.

When men are before S. Sebaſtians 7 or 8 leagues without the land, then it riſeth ſomewhat long, and at the weſt end ſteep and hollow, but when men come cloſe by the land, then it is very high and ſteepe.

When men are 8 leagues without S. Sebaſtians, then may they ſee the eaſtermoſt or greateſt caſtle upon the high hill, and alſo the little Iland to the weſtwards of it.

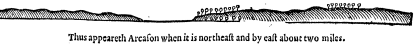
Courſes and diſtances.

From Cordan to Arcaſon ſouth	20 leagues
From Arcaſon to bayone ſouth	16 or 17 leagues
From the Tower Cordan to cape de pinas weſtſouthweſt ſomewhat ſoutherly 25 leagues	
From Arcaſon to bayone ſouth	16 or 17 leagues
From bayone to ſaint Iohn de luz ſouth and by weſt	4 leagues
From S. Iohn de luz to the pignons of S. Anna, ſouthweſt and by w.	2 leagues
From S. Iohn de luz to ſaint Sebaſtians weſt	3 leagues
From ſaint Sebaſtians to Gateria weſt and by n and w. n. w.	8 leagues
From Gateria to cape Martinchaco northweſt	5 or 6 leagues
From bayone to the Seames northweſt	12 leagues
From ſaint Sebaſtians to bell-ile n. n. w. ſomewhat northerly	80 leagues
From ſaint Sebaſtians to the Seames northweſt and by north	112 leagues
The courſes and diſtances of the places one from the other, is declared in the deſcription.	
From cape Martinchaco to Arcaſon northeaſt eaſterly	28 leagues
From cape Martinchaco to Vlo, north eaſterly	60 leagues
From S. Andero to the Seames northnorthweſt	96 leagues
From cape de pinas to the Tower of Cordan eaſtnortheaſt and by eaſt	northeaſt and 72 leagues
From cape de pinas to Porthus or S. Martins Iland, the courſe eaſterly	is northeaſt 80 leagues
From cape de pinas to bell-ile, the courſe is northnortheaſt	80 leagues
From cape de pinas to the Seames north	88 leagues
From cape pinas to cabo de Veilli in Ireland north and by weſt weſterly 170 leagues	

Heights.

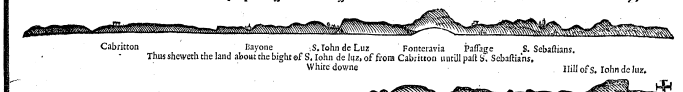
The Tower of Cordan lyeth in	45 degr. 45 minutes
Arcaſon in	44 degr. 40 minutes
Bayone lyeth in	43 degr. 45 minutes
The cape de Martinchaco in	43 degr. 46 minutes
The cape Martinchaco lyeth in	43 degr. 46 or 48 min:
The cape de pinas lyeth in	43 degr. 54 or 56 minut.
The whole coaſt of biskaye betwixt cape de pinas and Martinchaco, lyeth in about	43 degr. and 43, 44, or 45 minut.

How theſe Lands doe ſhew themſelves at Sea.

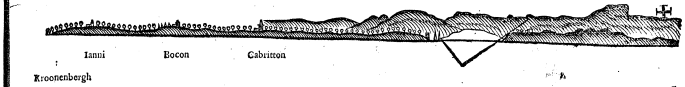


Thus ſheweth the land about Arcaſon when it is from you eaſtſoutheaſt neare two miles.

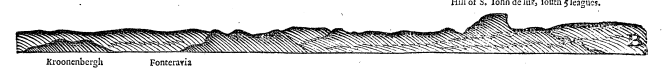
Thus appeareth Arcaſon when it is northeaſt and by eaſt about two miles.



Thus ſheweth the land about the bight of S. Iohn de luz, off from Cabritton untill paſt S. Sebaſtians.
White downe

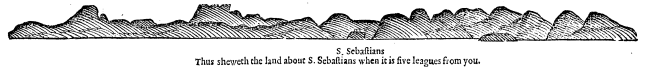


The foreſayd Iland about the bight of S. Iohn de luz from the northwards of Cabritton untill paſt Fonteravia, ſheweth thus, as is demonſtrated in theſe two figures, when you are before the barre of bayone.
Hill of S. Iohn de luz, ſouth 5 leagues.

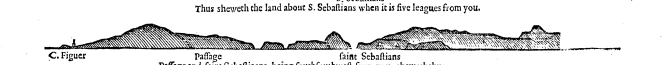


When the Hill of S. Iohn de luz is ſouth from you 5 leagues, then the land to the eaſtwards of it untill paſt S. Sebaſtians, ſheweth as is here above portrayed in theſe two figures, the BB, and CC, belong one to the other.

Thus ſheweth S. Sebaſtians, when you get firſt ſight of it, being 7 leagues off from it.

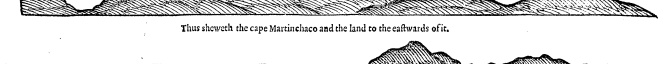


S. Sebaſtians
Thus ſheweth the land about S. Sebaſtians when it is five leagues from you.



Paſſage and ſaint Sebaſtiaens, being ſouthſouthweſt from you, ſheweth thus.

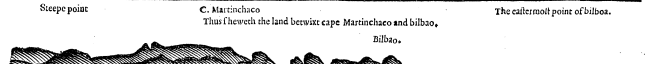
Thus ſheweth the cape Martinchaco and the land to the eaſtwards of it.

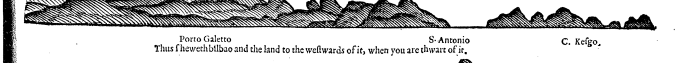


Thus ſheweth the land to the eaſtwards of bilbao, when men fall there with the land.

To the weſtwards of bilbao towards Caſtro, men ſhall a high ſharpe hill and ſheweth thus towards Caſtro.

Thus ſheweth the land betwixt cape Martinchaco and bilbao.





Thus ſheweth bilbao and the land to the weſtwards of it, when you are ebwart of it.

Outrock, like if there ſtand two men upon

Bilbao

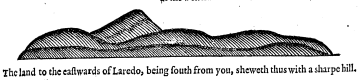
When the ſharpe hill over againſt the haven of bilbao is ſouth and by weſt from you, then the land ſheweth, as in this the following figure may be ſeene the AA belong one to the other.

Caſter

Lareden.

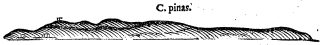
Thus sheweth the hill of S. Antonio lying at the weſt ſide of Lareo.

The hill of S. Antonio sheweth thus, when it lyeth E.S.E. from you.



The land to the eaſtwards of Laredo, being fouth from you, sheweth thus with a sharpe hill.

C. pinas.



Thus sheweth the land of Aviles, when you are thwart of it.

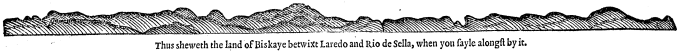
S. Antoni.

Sand-bay.

A

Cape Ceſgo.

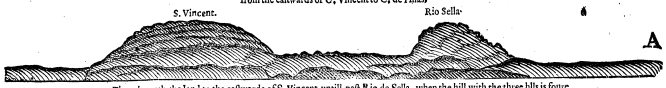
The land betwixt the weſtpoint of Bilbao, and cape Keſgo to the weſtwards of Mount S. Antonio sheweth at ſea when you ſayle alongſt by it, as is portrayed in theſe two figures here above.



Thus sheweth the land of Biskaye betwixt Laredo and Rio de Sella, when you ſayle alongſt by it.

Thus sheweth the land from Rio de Sella of, to cabo de pinas, when you ſayle alongſt by it.
Theſe foure figures following belong one to the other, the like letters, as AA, BB, CC, one to the other, and is the coaſt from the eaſtwards of C, Vincent to C, de Pinas,

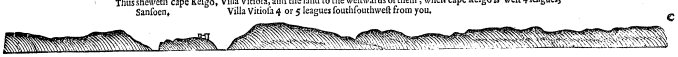
S. Vincent. Rio Sella.



Thus sheweth the land to the eaſtwards of S. Vincent untill paſt Rio de Sella, when the hill with the three hils is foure leagues thwart from you, and Rio de Sella is 4 leagues ſouthweſt from you.

Cape Ceſgo. Villa Vitioſa. Sand-bay. Sand-bay.

Thus sheweth cape Keſgo, Villa Vitioſa, and the land to the weſtwards of them, when cape Keſgo is weſt 4 leagues, Sanſoen, Villa Vitioſa 4 or 5 leagues ſouthſouthweſt from you.



Sand-bay.

Thus sheweth the land of Biskaye, when you are thwart of Gion.
This is the remainder of the three former figures, the CC being joned together.

Channel of Tores.

Thus sheweth the land when you are by Tores.

The three figures following one to the other, the like letters one to the other, and shew the riſing of the land on both ſides of the cape de Pinas, to wit, when the cape Pinas is about 4 leagues ſouth, ſomewhat weſterly, and the great hill to the eaſtwards of it is ſoutheaſt from you.
Southeaſt.

This hill lyeth moſt commonly covered with ſnow.

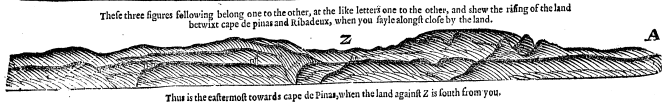
A

B

B

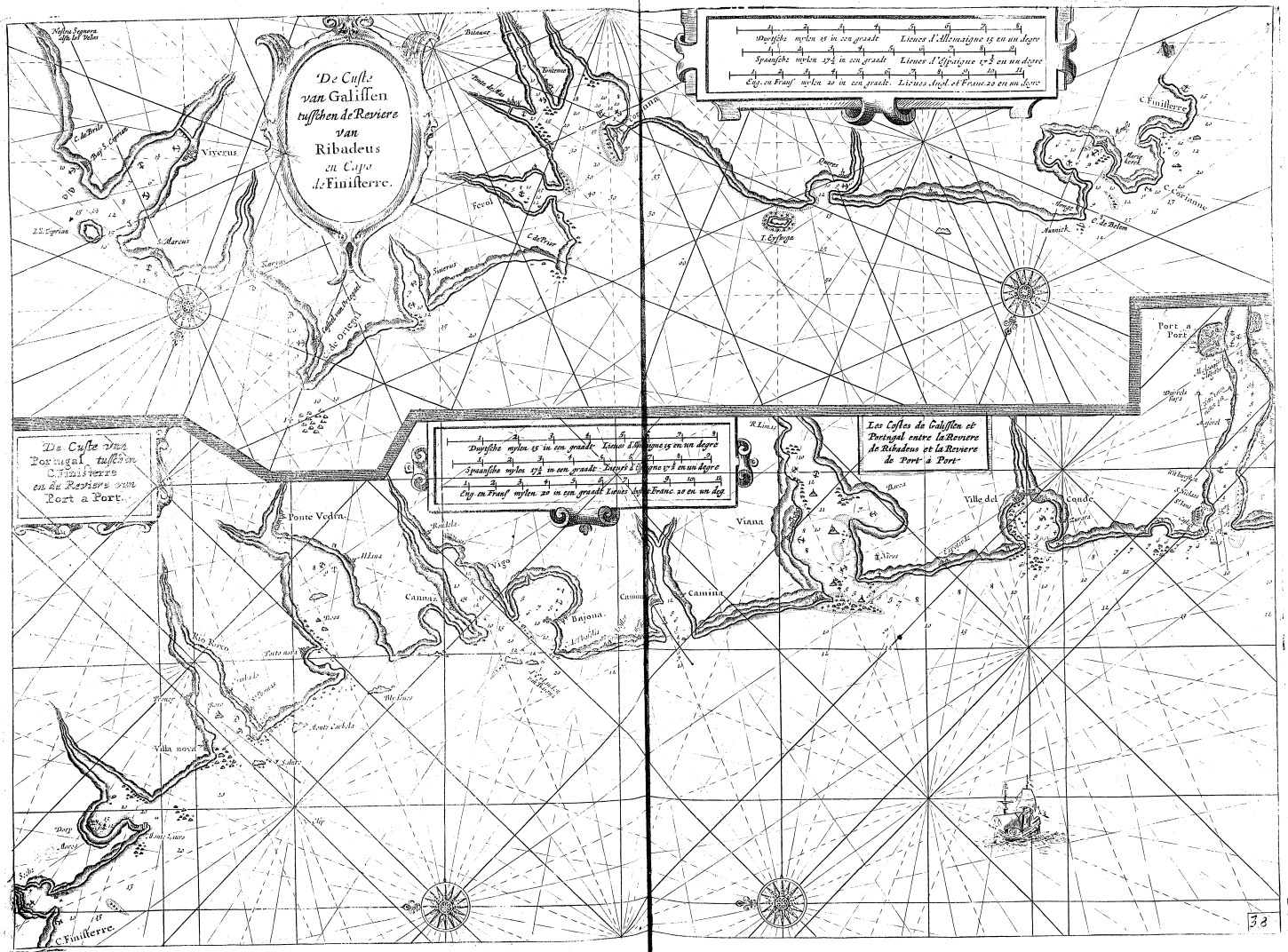
Theſe three figures following belong one to the other, at the like letters one to the other, and shew the riſing of the land betwixt cape de pinas and Ribadeux, when you ſayle alongſt cloſe by the land.

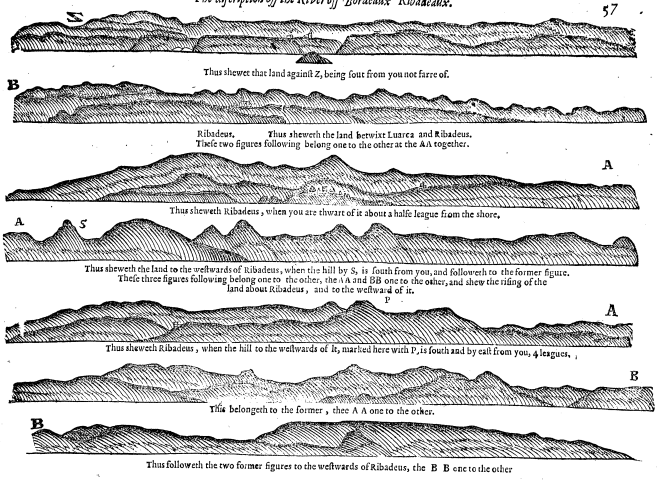
Z



A

Thus is the eaſtermoſt towards cape de Pinas, when the land againſt Z is ſouth from you.


De Custe van Galissen tusschen de Reviere van Ribadeus en Cabo de Finisterre.
De Custe van Portugal tusschen C. Finisterre en de Reviere van Port a Port.
Les Costes de Galissen et Portugal entre la Reviere de Ribadeus et la Reviere de Port à Port.
Duytsche mylen 15 in een grade Lieues d'Allemaigne 15 en un degre
Spaansche mylen 17½ in een grade Lieues d'Espagne 17½ en un degre
Eng. en Franc mylen 20 in een grade. Lieues Angl. et Franc 20 en un degre
Vivero
Feral
C. de Prior
C. Finisterre
Port a Port
Ponte Vedra
Vigo
Camina
Viana
Villa nova
Rio Rivo
Ville del
Conde
C. Finisterre



The third Demonstration,

Which Delinia teth the Sea-coastes of Galissa and Portugale, betweene Ribadeus and the River of Port a Port.

A Little league to the westwards of Ribadeus lyeth a tyde-haven, he that commeth from the west alongst by the shore thwart of it, showld tightly thinke that to bee the haven of Ribadeus, but it is light to discerne from it by these markes following. On both sides of this tyde-haven are the coasts all high land, but on both sides of the havens mouth of Ribadeus, it is low land. Also there lieth a high sharpe hill, and very good to be knowne, which ariseth out above all other hills there abouts, which may be knowne at least 7 or 8 leagues off, upon it lye some hee apes of stones toe see to like little house, when that you have that hill S. S. W. from you, and saile in so right with it, then you shall with the land right before the havens mouth of Ribadeus.

Northwest from Ribadeus about 8 leagues, lieth the Cabo de Brilo, a little to the westwards of it lieth the little towne Viverus. Viverus. To the westwardes of the Bay of Cipriaen (where men may anckor in ten fathom) lye two great high rockes w. n. w. from these rockes about a halfe league lieth the land S. Ciprian, right before the haven of Viverus, whereby this haven is good to be know: you may saile about on both sides off this Iland into the haven of Viverus, in all alongst in the middle off the channell fouth and fouth and by west untill you come before the town, being within, you may anckor where you will either on the east or west side, it is there showld water off 5 6, 7, and eight fathom, according as you run farre in. From the havens of Viverus or from the Iland S. Ciprian to C. de Ortegall, the course is w. n. w. nine leagues.

Betwixt both, a league to the westwards of Viverus, lyeth the litle towne of S. Marcus with a Bay, there men may anckor in 7 or 8 fathom, and ride for a S. S. W. and west wind.

Two great leagues to the westwardes of S. Marcus lieth the river of Caryns, there is also good anckoring, and from thence forth unto the Castle of Ortegall, all the coast alongst, it is there every where cleane. From Caryns to Ortegall, the course is northwest, five leagues. Ortegall is a great poist lying out, to the eastwards of it, men may lye landlockt for a northwest, west southwest, and south winde, thwart of the castle is the best road, there men may anckor in 8 or 9 fathom. When men come from the east, Ortegall is good to bee knowne, they shall see the castle stand against the high land.

About a league northnorthwest into sea from the C. de Ortegall, lieth a great rane of rocks: betwixt them and the forefayd Cape, men may fayle through in ten fathom. C. Ortegall.

From the Cape Ortegall to the C. Prior, the course is fouthwest ten leagues: betwixt them both lieth a Towne called Sedaira, by the Dutch Schippers called Siverus, which hat a deepe haven lying in foutheast. The north side of the haven is rocky and fowle, which you must avoyd, and run close in by the westland, which is a high land, alongst by it is twelve fathom deepe, within the havens mouth it is ten fathom deepe, you may saile in untill you come before the towne, and anckor there in 6 or 7 fathom. S. Verus.

Five leagues to the westwardes of Sedeira lieth the C. de Prior, which is a very ragged hill, to see to a far of, as if it were full of people. C. Prior.

Three leagues from the Cape de Prior, lieth the haven off Feroll: betwixt them both lye two little sand-bayes, the foutthermost (where in stand some little white houses) is the greateast, and lieth a little to the northwardes of the north point off Ferroll; when you come neere the Baye, the haven beginneth to open it selfe, it lieth eastnortheast and east and by north in, amids the channell betwixt two high lands: when you come in, you must presently edge up to the northwardes by the north point and ancker there a little to the westwardes of the village Ferol, before the village it is flat and rocky ground.

When you come from the west, or from the Groyne, and will fayle into the haven off Feroll, then goe away from the little Iland S. Blafius north and north and by west, and run a good wayes about, without the south point off Feroll (which is very fowle and rocky, untill that you see the haven open, goe then yet so farre to the northwards off the southpoint, untill that the haven doe shut againe, and run then right in with the forefayd greatest sand-bay, wherein stand the two or three little white houses to the northwards off the haven, untill that you bee within the south point, and the fowle grounds which lye off from it, saile then right to the north point of the haven, and alongst by it towards the south-side, untill that haven doe open it selfe againe, and For to faile from the southward.

runne then (as before) alongst in the middeft of the channell. This haven is fo narrow in the comming in, that you may eaft a ftone upon the land on both fides, and in that narrow it is 20 fathom deepe. When you are in the havens mouth, you may fee through betwixt the Iland Sifarga, and the maine land to fouthwards of it.

For to faile into the Groyne.

To faile from Feroll to the Groyne, the courfe is fouth, and fouth and by weft 3 leagues, when you come neere the weft-land, you muft give it a birth, at leaft of foure or five Cables lengths, becaufe it is not very cleane. When you come by the point where the Caftle ftandeth upon you fhall fee then alfo a little Iland with a little houfe upon it, you may faile alongft by it within a halfe cables length, and runne about by it, up to the weftwardes, untill you come before the Fifher village, and anckor there in fixe, feven, or eight fathom.

From Cape de Prior to the Groyne, the courfe is fouth, and fouth and by weft five leagues.

Eaftnortheaft from the forefaid Iland where the Caftle ftandeth upon, goeth in a Sound foutheaft, five or fixe leagues within in the land, to Bitanze, where you may anckor on the weft fide under a row of rocks, in 10 or 12 fathom, alfo you may faile fo deepe in, that you can fee no fea.

Haven of Bitanze.

To the northwards of that Sound, over againft the point of the Groyne, lieth alfo another haven or Sound, called Ponte de Mas, on the north fide lieth a row of rockes, where men run alongft to the fouthwardes of them: men may alfo faile there fo deepe in, that they can fee no fea. A good wayes within lieth a great bridge over the river.

Ponte de mas.

He that commeth from the weft off from the Yland Cifarga and is bound into the Groyne muft give the north point or the weft point of the Groyne (where the tower ftandeth) a birth of 1 or 1 Cables lengths, as before is faid, which point is rocky and fowle farre from the fhore, & run then eaft fouth-eaft, and foutheaft about by the point, and afterwardes S.S.E. unto the little Iland with the Caftle and about by it as is before faid.

Iland Cifarga.

The little Iland Cifarga, of the Dutchmen called Cefarie, is fowle round about, and lieth from the point of the Groyne, due eaft and weft diftant 7 or 8 leagues, from the haven of Feroll weft and by fouth, from the C. Prior W. S. weft and fouthweft and by weft, and from the C. de Ortegall fouthweft, and fouthweft and by weft 17 or 18 leagues.

Queres.

From the Yland Cifarga fouthweft and by weft, and S. S. weft lieth Queres, a good haven alfo for great fhips, the weft fhore is cleane, but the eaft fhore is fowle, therefore men muft faile in alongft by the weft fhore, when they are betwixt the two lands, then they muft goe in amids the channell, unto the point, and then run op the weftwardes a great halfe league in, and anckor there in 7, 8, and nine fathom.

C. de Bylem.

From the Yland Cifarga fouthweft and by weft, and W. S weft 12, or 13 leagues lieth the eaft point off Monfie, called Cabo de Bylem, which is a high fteepe point, with many ragged rocks lying of loofe from the land, whereof the greateft, being like a tower, doth fhew it felfe black, and is called the Murck.

There lieth alfo a great rane of rockes right before the Haven or found of Monfie, fouthweft and by fouth from the Murck, at leaft two or three cables lengths long but the innermoft end of it lieth from the Murck fouth and by weft. When men fail with the land of Monfie, it is all double land, about the Cape de Finifterre lieth a high white fand, lying in within the land a fand bay.

Alfo men may fee comming about the C. de Finifterre, a ragged hill which runneth alongft fo farre to the fouthwards that men may fee it before the Moores.

Monfley.

He that is bound in for Monfie, comming from Cifarga, muft goe in clofe alongft by the C. de Bylem, or Bellem: this point is altogether a ragged high fharpe land of fteep rocks, as before is faid, and when you are by that point, then you muft keep the Cape de Coriane a fhips length without the Cape de Kete, fo long untill that the Church of S. Maria come without the point of Monfie, run then in at the eaftet channell S. S. E. upon thefe markes, funtill you be paft the Church, then you fhall fee a row of rockes, run in behinde or within them, and anckor there before the village of Monfie in 5, 6, or 7 fathom. When you faile thus from the cape de Bylem to Monfie, then the rocks (which lye in the middeft before the Haven) remaine about an Engliih mile to feawards on the weft fide of you.

The wefter channel of Monfley.

For to faile in at the wefter channell, you muft go in E. S. E. in different neare alongft by the land, and when the forefayd Ladies Church commeth without the point, then you muft faile towards the Rockes, which lye before Monfie, as is beforefaid, and anckor within the rockes in 7 or 8 fathom, but runne not to farre in, becaufe there fhooteth of a fhould riffe alongft the haven, whereof you muft take heed.

The eaftet channell is beter to come into, then the wefter channell, faile not into Monfie before that you fee the forefaid Church without the point, you may alfo anckor on the north fide of the haven in five, fix, or 7 fathom.

The eaftle channel of Monfye.

To the fouthwards of the village of Monfie is a Bay where the forefaid riffe or fhould lieth before, lying E. N. E. at leaft cables lengths alongft the Haven.

Our Ladies Church and the Munck lye one from the other and by eaft and by S. and by w.

Southweft from the cape Bellem 3 leagues lieth the cape de Coriane. C. de Coriane.

From cape de Coriane it is fouth and north three leagues to cape de Finifterre: Betwixt the two capes is a Sand-bay where men may anckor to the eaftwards of a great rock in fix or feven fathom. This is a great Bay which goeth in far into the land. At then fide of this Bay lye rocks under water, whereoff men muft take heed.

About a league to the eaftwards of cape de Finifterre on the fouth fide, lieth the Haven of Seche or Corcovia, and is called by the Dutch Schippe-maiters, Corck Bayone. Betwixt this Haven and the cape lye two fandbayes, the firft, or that which is next unto the cape, is the greateft, and by the fecond goeth in into this haven north, in eight and nine fathom. On the eaft fide of the haven lieth a great Rocke, and about fouthfouthweft of from that Rock, almoft in the middeft of the haven, lieth a fmcken rocke under water: But run in n. untill you efpye the towne on the weft fide, and anckor there in 6 or 7 fathom. Within upon the River lieth alfo a Village, or little Towne, about northnortheaft from you.

Seche Corck. Bayone.

From Cape de Finifterre to the Haven off Moores, the courfe is foutheaft 5 great leagues, when you come about the cape de Finifterre, you fhall fee a high ragged hill which runneth fo farre to the fouthwards, that you may fee it alfo before Mores, that is good mark for to know the land by thereabouts.

The Moores.

When the forefayd ragged hill is northeaft from you, then are you thwart of cape de Finifterre, and then the hill Monte Lauro, which lieth upon the northeaft point of Mooree, lieth eaftnortheaft from you, that is a high cloven hill which is alfo good to know.

Southeaft three little leagues from the cape de Finifterre, lieth a rane of rockes under water, and eaftfoutheaft about two leagues from thefe rockes, lye alfo fome rockes above water, a little to northwards of Monte Lauro, or the Sound of Moores, and lye from Monte Lauro weft and by fouth. Alfo there lye a deale of rocks to the fouthwards of this Sound of Moores, and right in the middft of the Sound lieth alfo a funcken rock about foutheaft of from Monte Lauro.

He that will faile into Moores, he muft bring Monte Lauro northeaft and by north of him, and faile in fo right with it, and then he fhall not come to neere the fowle ground or dangers: when he cometh then by Monte Lauro, he fhall fee the forefaid rocks lying out to the northwardes of Monte Lauro, he muft leave them as alfo the point of Monte Lauro two or three cables lengths on the larboard fide off him, and fayle in fo alongft by them, untill that the hee come paft the fecond point, leaving the funcken rock (which lyeth in the midft of the Sound) on the ftarboard fide off him: and when the fifher village which ftands to the northwards of Monte Lauro, commeth to ftand altogeather bare, then he is within the funcken rock which lieth in the middft off the Sound fouth and by eaft eafterley from the eaft end of the forefaid Fifher village.

For to faile into Moores.

When you come by the fecond point, you muft runne in about it within a cables length, and edge up to the northwards, untill you come before the village, or up to the weftwards before the towne, where you pleafe, and anckor there in 12 or 13 fathom.

If you will faile into Rio Roxo, then run about without the rockes, which lye to the fouthwards of the Moores, and goe in foutheaft and by fouth, untill that you come before the Haven of Rio Roffo, or Roxo, then you fhall fee a great many off rockes, lying off from the northland, allmoft unto a great rock, or Yland, called Salure: betwixt thefe rockes that lye out there, and the Yland Salure, you may well run through about to the Northwards off the Yland but is very narrow, by reafon of the aforefaid rockes, which lye off from the north land, therefore fayle about to the fouthwards off the fame Yland, indifferent clofe alongft by it; leaving it on the larboard fide, or to feawardes off you untill that you fee the Sound open, and then runne in keeping the middle off the channell, unto that Yland Roxo, which you fhall fee lye in the middeft off the Haven, when you come neere it, you

For to faile into Roxo.

may anckor under the fouth-land, there are two Sand-bayes, where is good anckor ground.

Ve-bela dines.

About two leagues fouthweft from Rio Roxo lieth a funcken rock, John Claefz. Bors of Sardam, did fail upon it, and there loft his fhippe the 20 of February 1613 in the night.

From Rio Roxo, or the Iland Salure, unto Ponte Vedra, or the Iland Blydones, the courfe is fouthfoutheaft foure leagues, betwixt them both lieth and Yland called Monte Carbela; within it, it is three fathom deepe, Right before the haven of Ponte Vedra lieth the Iland Blydones which men may faile round about. On the north fide it is not deeper then five or fixe fathom. There lye alfo within the Sound, on the north fide two rockes called the Boos or Oxen. On the fouth fide off Blydones is the right fareway for to faile into Ponte Vedra, this haven lieth in northeaft untill within the Iland; fomewhat furter in the middft off the haven lieth alfo another little Iland, which you muft alfo goe the fouthwards off, therefore goe in eaftnortheaft alongft by the fouth-land, untill that you fee the flat tower which ftandeth upon the fouth-land, and then you muft run over a banck, right on with the point of Ponte Vedra, within it lieth the towne, thwart off the flat tower men may anckor in 8 or 9 fathom: This haven is at fome places foure fathom deepe.

Of Blydones.

Five leagues to the fouthwards of the Ilands of Blydones lye the Ylands of Bayone, when men come in out of the fea, right with them, then thefe Ilands doe feeme to be all gray and black rockes, and lye to fee to, as if they were three Ilands, although that the fea doe run through them, but at one place, betwixt each is a faddle or valley.

Within the land adongft over thefe Ilands, men fhall fee two high hills very good to be known, the eaftermoft hath three high hommocks, and the weftermoft two with valleys betwixt the hommocks; a little to the eaftwards of the eaftermoft hill men fhall fee a white Abbey ftand againft the high land, whereby this land is very good to be knowne.

You may faile within thefe Ilands of Bayone either to the northwards or to the fouthwards, but at the northeaft point of the Ilands lieth a rocke under water, about 2 cables length off from them, where of you muft take heed, and anckor in 10, 11, or 12 fathom on the eaft fide of the Ylands.

Hee that will faile in to the notthwards, muft run in betwixt the Ilands and the maine land, keeping neere about the middle of the channell, but neereft to Ilands, untill that the Sound off Virgo, or Cannes bee open, and then faile in to the eaftwards, there is a broad Sound, where men may anckor on both fides, to wit, on the fouthfide before Vigo, and on the north fide before Cannas in twelve or thirtheene fathome.

Alfo men may fayle further in about the fouth poynt off Rondella, where men may fave a fhippe in the oaze, without anckor or cables.

At the point of Vigo lieth a little Iland, he that commeth in to the northwards of the Ilands, and is bound in for Bayone, may faile through betwixt that little Iland and the point Vigo, right in with Bayone, to wit, alongft a little to the weftwards of the point, untill hee come before the towne, and anckor there in 4, 5, or 6, fathom.

Betwixt that forefaid little Iland, and the point of Vigo, it is at high water 4 fathom and a halfe, and at low water 3 fathom and a halfe deepe, men muft (fayling through there) give the point of Vigo a birth, becaufe of fome funcken rocks that lye of from it. When that men lye in the roade before Bayone, in 5 or 6 fathom, they may fee the Ylands of Blydones through betwixt the forefaid point of Vigo, and the little Iland.

From that fame little Iland lieth to the weftwards another little Iland or rock, betwixt them both it is fowle, fo that men cannot fayle through betwixt them, and from that weftermoft little Iland lieth a fowle riffe or ledge of rockes, fouthweft off towards the point of the land of Bayone, where of men muft take very good heed, whether you come from the northwards and will faile through betwixt that riffe and the Ilands off Bayone, or els come in from the fouthwards, betwixt the Ilands and the maine, and will goe in for Bayone.

That riffe lyeth at low water at many places dry, the outermoft rockes there of, and the point of Bayone, where the Caftle ftandeth upon, lye foutheaft and foutheaft and by eaft, and northweft and northweft and by weft and Engliih mile afunder, therefore he that commeth from the northwards, and will goe into Bayone to the weftwards off that riffe, that is betwixt the riffe and the Ilands let hem goe fo long to the fouthwards, untill that the Caftle of Bayone come to be E. S. E. and eaft and by fouth from him, and faile then towards it, and then he fhall run farre enough alongft to the fouthwards of it.

At the fouth end of the Iland of Bayone, lieth a great rock, with a deale of fmall rockes round about it, men may faile very clofe, alongft by them, but at high water the outermoft rocks lye under water, where of men muft be mindfull, clofe by the rocks it is 20, and 25, and 26, fathom deepe. From the point of the maine land over againft the fouth end of the Ylands, runneth off a ledge of rocks, whereupon it breaketh very much, when the fea is grown where of alfo men muft take heed.

For to faile into the fouth-ward of Bel Ilands.

When you come from the fouthwards, or out of the fea, and will faile in for Bayone, about the fouthwards of the Ylands with a fouther ly or fouthweft winde, then run right with the fouth point of the outermoft land of Bayone, untill you come neere about a halfe league of the land, and then alongft by the fhore, unto the outher point on the fouth fide of the comming into the bay, where that forefaid riffe runneet of, which lieth of low, give that riffe a birth, and runneth in betwixt it and the forefaid rockes at the fouth end of the Ylands, northeaft, or eaftnortheaft in, according as you fhall come in out of the fea, leaving the riffe on ftarboard, and the rockes with the Ilands on the larboard fide untill that you come to the end, or to the northwards of the riffe, the north end, or the outermoft point of that riffe at the fouth point, and the point Bayone where the Caftle ftandeth upon, lye neareft eaft and by north, and weft and by fouth a little league afunder. When as then you have the forefaid riffe (on the fouth fide) upon your broad fide, or els are to the northwardes of it, and that the Caftle doe ftand eaft, or there abouts from you, goe then right in with the Caftle, leaving that forefaid other riffe (which lieth off fouthweft from the little Ilands at the point of Vigo) on the larboard fide of you. If you bring the point off the Caftle, not to the fouthwardes of E. S. E. then you can not take any hurt of the northermoft riffe.

For to faile into the Vigo or Cannas from the fouth-wards.

The outer rocks of that northermoft riffe, (which fhooteth off from the two forefaid litle Ylands) and the riffe, which fhooteth of from the fouth point of the land of Bayone, where men muft fayle through betwixt, lye on from the other fouthweft, and fouthweft and by fouth, and northeaft and northeaft and by north about an Engliih mile afunder. When you come neere the Caftle, then come in very neere the fhore, which is not very cleane, and when, as then you come thwarth of the innermoft point of the Caftle before that you begin to fee the Towne off Bayone, from behind the point, you muft looke well out before you: for from that fame innermoft point, and from the Caftle, there lieth of a funcken rock about halfe a cables length from the forefaid point, whereupon remaineth at low water no more then nine or ten foot water, keepe therefore (thwart of it) fomewhat of from the point. When as you begin to fee the towne of Bayone, then luffe up fuddenly fouth and fayle before the Towne, and anckor there in five or fixe fathom, where you pleafe, or els that the point of the Caftle come againft the weftermoft Iland of the two which lye off from the north point of the Bay, or point of Vigo, there is a good oafie ground that holderh well, fet your anckers when you morie, northweft and foutheaft, the beft anckor to the foutheaft; from thence over the high land you fhall have commonly the hardeft windes.

For to faile into Vigo or Cannas from the fouth-wards.

If you muft turn to and againe into the bay, then take very good heed, when you run of from the Caftle, that you run not to far over fouthfoutheaft, right before the Towne, foutheaft and by eaft, and eaft foutheaft from the roade about a musket-fhot, lieth another funcken rock, which at low water is unco-vereth, it lieth a fmall cables length of from a little point in the fouth point of the bay, whereupon ftandeth a little houfe, to fee to a farre of like a great green rock, you muft be very carefull of it, efpecially when you runne over towardes the fouthfoutheaft.

But hee that is bound into Vigo or Cannas to the fouthwardes of the Ilands, fhall faile in betwixt that fouthermoft Iland and the point of the land off Bayone, all alongft in the middle of the channel, northeaft, or northeaft, and by north in, at leaft two great leagues, keeping the norther haven two fhippes length open, fo long untill Cannas come to the northland without the point off Vigo: and then hee muft leave the point of Vigo on the ftarboardfide off him, and run in (keeping the middle of the channell) betwixt the northland and the Towne Vigo, and anckor there either before Cannas or Vigo, where hee pleafeth in ten or twelve fathom.

S. Rego.

A little to the northwards off Camina, lyeth on the coaft a high fteep hill, above in the top with a clift or faddle, being called S. Rego, it is allmoft off fafhion like Monte Sauro, but at leaft once fo high againe, this hillie a very good mark for to know the places there abouts. Abbout halfe wayes betwixt this hill and Bayone, lyeth an Abbey upon the fi-

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runne then (as before) alongst in the middeft of the channell. This haven is fo narrow in the comming in, that you may eaft a ftone upon the land on both fides, and in that narrow it is 20 fathom deepe. When you are in the havens mouth, you may fee through betwixt the Iland Sifarga, and the maine land to fouthwards of it.

For to faile into the Groyne. To faile from Feroll to the Groyne, the courfe is fouth, and fouth and by weft 3 leagues, when you come neere the weft-land, you muft give it a birth, at leaft of foure or five Cables lengths, becaufe it is not very cleane. When you come by the point where the Caftle ftandeth upon you fhall fee then alfo a little Iland with a little houfe upon it, you may faile alongft by it within a halfe cables length, and runne about by it, up to the weftwards, untill you come before the Fifher village, and anckor there in fixe, feven, or eight fathom.

From Cape de Prior to the Groyne, the courfe is fouth, and fouth and by weft five leagues.

Eaftnortheaft from the foresaid Iland where the Caftle ftandeth upon, goeth in a Sound foutheaft, five or fixe leagues within the land, to Bitanze, where you may anckor on the weft fide under a row of rocks, in 10 or 12 fathom, alfo you may faile fo deepe in, that you can fee no fea.

Haven of Bitanze. To the northwards of that Sound, over againft the point of the Groyne, lieth alfo another haven or Sound, called Ponte de Mas, on the north fide lieth a row of rockes, where men run alongft to the fouthwardes of them: men may alfo faile there fo deepe in, that they can fee no fea. A good wayes within lieth a great bridge over the river.

Ponte de mas. He that commeth from the weft off from the Yland Cifarga and is bound into the Groyne muft give the north point or the weft point of the Groyne (where the tower ftandeth) a birth of 4 or 5 Cables lengths, as before is faid, which point is rocky and fowle farre from the fhore, & run then eaft fouth-eaft, and foutheaft about by the point, and afterwardes S. S, E. unto the little Iland with the Caftle and about by it as is before faid.

Iland Cifarga. The little Iland Cifarga, of the Dutchmen called Cefarie, is fowle round about, and lieth from the point of the Groyne, due eaft and weft diftant 7 or 8 leagues, from the haven of Feroll weft and by fouth, from the C. Prior W. S. weft and fouth-weft and by weft, and from the C. de Ortegall fouthweft, and fouthweft and by weft 17 or 18 leagues.

Queres. From the Yland Cifarga fouth and by weft, and S. S. weft lieth Queres, a good haven alfo for great fhips, the weft fhore is cleane, but the eaft fhore is fowle, therefore men muft faile in alongft by the weft fhore, when they are betwixt the two Ilands, then they muft goe in amids the channell, unto the point, and then run op the weftwardes a great halfe league in, and anckor there in 7, 8, and nine fathom.

C. de Bylem. From the Yland Cifarga fouthweft and by weft, and W. S. weft 12, or 13 leagues lieth the eaft point off Monfie, called Cabo de Bylem, which is a high fteepe point, with many ragged rocks lying of loofe from the land, whereof the greateft, being like a tower, doth fhew it felfe black, and is called the Munck.

There lieth alfo a great rane of rockes right before the Haven or found of Monfie, fouthweft and by fouth from the Munck, at leaft two or three cables lengths long but the inner moft end of it lieth from the Munck fouth and by weft. When men fal with the land of Monfie, it is all double land, about the Cape de Finifterre lieth a high white fand, lying in within the land a fand bay.

Alfo men may fee comming about the C. de Finifterre, a ragged hill which runneth alongft fo farre to the fouthwards that men may fee it before the Moores.

Monfley. He that is bound in for Monfie, comming from Cifarga, muft goe in clofe alongft by the C. de Bylem, or Bellem: this point is altogether a ragged high fharpe land of fteep rocks, as before is faid, and when you are by that point, then you muft keep the Cape de Coriane a fhips length without the Cape de Kotc, fo long untill that the Church of S. Maria come without the point of Monfie, run then in at the eaftet channell S. S. E. upon thefe markes, untill you be paft the Church, then you fhall fee a row of rockes, run in behinde or within them, and anckor there before the village of Monfie in 5, 6, or 7 fathom. When you faile thus from the cape de Bylem to Monfie, then the rocks (which lye in the middeft before the Haven) remaine about an Engliſh mile to feawards on the weft fide of you.

The weſter channel of Monfeye. For to faile in at the weſter channell, you muſt go in E. S. E. in different neare alongſt by the land, and when the forefayd Ladies Church commeth without the point, then you muſt faile towards the Rockes, which lye before Monfie, as is beforeſaid, and anckor within the rockes in 7 or 8 fathom, but runne not to farre in, becauſe there ſhooteth of a ſhowld riffe alongſt the haven, whereof you muſt take heed.

The eaſter channell is beter to come into, then the weſter channell, faile not into Monfie before that you ſee the foreſaid Church without the point, you may alſo anckor on the north ſide of the haven in five, ſix, or 7 fathom.

To the ſouthwards of the village of Monfie is a Bay where the foreſaid riffe or ſhowld lieth before, lying E. N. E. at leaſt cables lengths alongſt the Haven.

Our Ladies Church and the Munck lye one from the other and by eaſt and by S. and by w.

Southweſt from the cape Bellem 3 leagues lieth the cape de Coriane. C. de riane.

From cape de Coriane it is fouth and north three leagues to cape de Finifterre: Betwixt the two capes is a Sand-bay where men may anckor to the eaſtwards of a great rock in ſix or ſeven fathom. This is a great Bay which goeth in far into the land. At then ſide of this Bay lye rocks under water, whereoff men muſt take heed.

About a league to the eaſtwards of cape de Finifterre on the ſouth ſide, lieth the Haven of Seche or Corcovia, and is called by the Dutch Schippe maſters, Corck Bayone. Betwixt this Haven and the cape lye two ſandbayes, the firſt, or that which is next unto the cape, is the greateſt, and by the ſecond goeth in this haven north, in eight and nine fathom. On the eaſt ſide of the haven lieth a great Rocke, and about ſouthſouthweſt of from that Rock, almoſt in the middeſt of the haven, lieth a ſuncken rocke under water: But run in it untill you eſpye the towne on the weſt ſide, and anckor there in 6 or 7 fathom. Within upon the River lieth alſo a Village, or little Towne, about northnortheaſt from you. Seck Corck Bayone

From Cape de Finifterre to the Haven off Moores, the courſe is ſoutheaſt 7 great leagues, when you come about the cape de Finifterre, you ſhall ſee a high ragged hill which runneth ſo farre to the ſouthwards, that you may ſee it alſo before Mores, that is good mark for to know the lead by thereobouts. Moore

When the foreſayd ragged hill is northeaſt from you, then are you thwart of cape de Finifterre, and then the hill Monte Lauro, which lieth upon the northeaſt point of Mooree, lieth eaſtnortheaſt from you, that is a high cloven hill which is alſo good to know.

Southeaſt three little leagues from the cape de Finifterre, lieth a rane of rockes under water, and eaſtſoutheaſt about two leagues from theſe rockes, lye alſo ſome rockes above water, a little to northwards of Monte Lauro, or the Sound of Moores, and lye from Monte Lauro weſt and by ſouth. Alſo there lye a deale of rocks to the ſouthwards of this Sound of Moores, and right in the midſt of the Sound lieth alſo a ſuncken rock about ſoutheaſt of from Monte Lauro.

For to ſaile into Moores. He that will faile into Moores, he muſt bring Monte Lauro northeaſt and by north of him, and faile in ſo right with it, and then he ſhall not come to neere the fowle ground or dangers: when he cometh then by Monte Lauro, he ſhall ſee the foreſaid rocks lying out to the northwardes of Monte Lauro, he muſt leave them as alſo the point of Monte Lauro two or three cables lengths on the larboard ſide off him, and ſayle in ſo a-longſt by them, untill that he hee come paſt the ſecond point, leaving the ſuncken rock (which lyeth in the midſt of the Sound) on the ſtarboard ſide off him: and when the ſilher village which ſtands to the northwards of Monte Lauro, commeth to ſtand altogether bare, then he is within the ſuncken rock which lieth in the midſt off the Sound ſouth and by eaſt eaſterley from the eaſt end of the foreſaid Fifher village.

For to faile into Roxo. When you come by the ſecond point, you muſt runne in about it within a cables length, and edge up to the weſtwards before the towne, where you pleaſe, and anckor there in 12 or 13 fathom.

If you will faile into Rio Roxo, then run about without the rockes, which lye to the ſouthwards of the Moores, and goe in ſoutheaſt and by ſouth, untill that you come before the Haven of Rio Roſſo, or Roxo, then you ſhall ſee a great many off rockes, lying off from the northland, allmoſt unto a great rock, or Yland, called Salure: betwixt theſe rockes that lye out there, and the Yland Salure, you may well run through about to the Northwards off the Yland but is very narrow, by reaſon of the aforeſaid rockes, which lye off from the north land, therefore fayle about to the ſouthwards off the ſame Yland, indifferent cloſe alongſt by it, leaving it on the larboard ſide, or to ſeawardes off you untill that you ſee the Sound open, and then runne in keeping the middle off the chaunell, unto that Yland Roxo, which you ſhall ſee lye in the middeſt off the Haven, when you come neere it, you may

may anckor under the ſouth-land, there are two Sand-bayes, where is good aucker ground.

About two leagues ſouthweſt from Rio Roxo lieth a ſuncken rock, John Claeſz. Bors of Sardam, did ſail upon it, and there loſt his ſhippe the 20 of February 1613 in the night.

Ponte Vedra. Mi. carbela Blydones. From Rio Roxo, or the Iland Salure, unto Ponte Vedra, or the Iland Blydones, the courſe is ſouthſoutheaſt foure leagues, betwixt them both lieth and Yland called Monte Carbela; within it, it is three fathom deepe. Right before the haven of Ponte Vedra lieth the Iland Blydones which men may faile round about. On the north ſide it is not deeper then five or ſixe fathom. There lye alſo within the Sound, on the north ſide two rockes called the Boos or Oxen. On the ſouth ſide off Blydones is the right fareway for to faile into Ponte Vedra, this haven lieth in northeaſt untill within the Iland; ſomewhat furter in the midſt off the haven lieth alſo another little Iland, which you muſt alſo goe the ſouthwards off, therefore goe in eaſtnortheaſt alongſt by the ſouth-land, untill that you ſee the flat tower which ſtandeth upon the ſouth-land, and then you muſt run over a banck, right on with the point of Ponte Vedra, within it lieth the towne, thwart off the flat tower men may anckor in 8 or 9 fathom: This haven is at ſome places foure fathoom deepe.

Iland of Bayone. Five leagues to the ſouthwards of the Ilands of Blydones lye the Yiaids of Bayone, when men come in out of the ſea, right with them, then theſe Ilands doe ſeeme to be all gray and black rockes, and lye to ſee to, as if they were three Ilands, although that the ſea doe run through them, but at one place, betwixt each is a ſaddle or valley.

Within the land adongſt over theſe Ilands, men ſhall ſee two high hills very good to be known, the eaſtermoſt hath three high hommocks, and the weſtermoſt two with valleys betwixt the hommocks; a little to the eaſtwards of the eaſtermoſt hill men ſhall ſee a white Abbey ſtand againſt the high land, whereby this land is very good to be knowne.

For to faile into Bayone. From the northwards. You may faile within theſe Ilands of Bayona either to the northwards or to the ſouthwards; but at the northeaſt point of the Ilands lieth a rock under water, about a cables length off from them, where of you muſt take heed, and anckor in 10, 11, or 12 fathom on the eaſt ſide of the Ylands.

Urge Cannas. Hee that will faile in to the notthwards, muſt run in betwixt the Ilands and the maine land, keeping neere about the middle of the channell, but neereſt to Ilands, untill that the Sound off Virgo, or Cannes bee open, and then faile in to the eaſtwards, there is a broad Sound, where men may anckor on both ſides, to wit, on the ſouth ſide before Vigo, and on the north ſide before Cannas in twelve or thirtheene fathome.

Alſo men may ſayle further in about the ſouth poynt off Rondella, where men may fave a ſhippe in the oaze, without anckor or cables.

At the point of Vigo lieth a little Iland, he that commeth into the northwards of the Ilands, and is bound in for Bayone, may faile through betwixt that little Iland and the point Vigo, right in with Bayone, to wit, alongſt a little to the weſtwards of the point, until hee come before the towne, and anckor there in 4, 5, or 6, fathom.

Betwixt that foreſaid little Iland, and the point of Vigo, it is at high water 4 fathom and a halfe, and at low water 3 fathom and a halfe deepe, men muſt (ſayling through there) give the point of Vigo a birth, becauſe of ſome ſuncken rocks that lye of from it. When that men lye in the roade before Bayone, in 5 or 6 fathom, they may ſee the Ylands of Blydones through betwixt the foreſaid point of Vigo, and that little Iland.

From that fame little Iland lieth to the weſtwards another little Iland or rock, betwixt them both it is fowle, ſo that men cannot fayle through betwixt them, and from that weſtermoſt little Iland lieth a fowle riffe or ledge of rockes, ſouthweſt off towards the point of the Iland of Bayone, where of men muſt take very good heed, whether you come from the northwards and will faile through betwixt that riffe and the Ilands off Bayone, or els come in from the ſouthwards, betwixt the Ilands and the maine, and will goe in for Bayone.

That riffe lyeth at low water at many places dry, the outermoſt rockes there of, and the point of Bayone, where the Caſtle ſtandeth upon, lye ſoutheaſt and ſoutheaſt and by eaſt, and northweſt and northweſt and by weſt and Engliſh mile aſunder, therefore he that commeth from the northwards, and will goe into Bayone to the weſtwards off that riffe, that is betwixt the riffe and the Ilands let them goe ſo long to the ſouthwards, untill that the Caſtle of Bayone come to be E. S. E. and eaſt and by ſouth from him, and ſaile then towards it, and then he ſhall run farre enough alongſt to the ſouthwards of it.

At the ſouth end of the Iland of Bayone, lieth a great rock, with a deale of ſmall rockes round about it, men may faile very cloſe, alongſt by them, but at high water the outermoſts rocks lye under water, where of men muſt be mindfull, cloſe by the rocks it is 20, and 25, and 26, fathom deepe. From the point of the maine land over againſt the ſouth end of the Ylands, runneth off a ledge of rocks, whereupon it breaketh very much, when the ſea is grown where of alſo men muſt take heed.

For to faile into the ſouthwards. When you come from the ſouthwards, or out of the ſea, and will faile in for Bayone, about the ſouthwards of the Ylands with a ſoutherly or ſouthweſt winde, then run right with the ſouth point of the outermoſt land of Bayone, untill you come neere about a halfe league of the land, and them alongſt by the ſhore, unto the outher point on the ſouth ſide of the comming into the bay, where that foreſaid riffe runnet of, which lieth of low, give that riffe a birth, and runneth in betwixt it and the foreſaid rockes at the ſouth end of the Ylands, northeaſt, or eaſtnortheaſt in, according as you ſhall come in out of the ſea, leaving the riffe on ſtarboard, and the rockes with the Ilands on the larboard ſide untill that you come to the end, or to the northwards of the riffe, the north end, or the outermoſt point of that riffe at the ſouth point, and the point Bayone where the Caſtle ſtandeth upon, lye neareſt eaſt and by north, and weſt and by ſouth a little league aſunder. When as then you have the foreſaid riffe (on the ſouth ſide) upon your broad ſide, or els are to the northwardes of it, and that the Caſtle doe ſtand eaſt, or there abouts from you, goe then right in with the Caſtle, leaving that foreſaid other riffe (which lieth of ſouthweſt from the little Ilands at the point of Vigo) on the larboard ſide of you. If you bring the point off the Caſtle, not to the ſouthwardes of E. S. E. then you can not take any hure of the northermoſt riffe. Bel Ilands.

The outer rocks of that northermoſt riffe, (which ſhooteth off from the two foreſaid litle Ylands) and the riffe, which ſhooteth of from the ſouth point of the land of Bayone, where men muſt fayle through betwixt, lye on from the other ſouthweſt, and ſouthweſt and by ſouth, and northeaſt and northeaſt and by north about an Engliſh mile aſunder. When you come neere the Caſtle, then come no very neere the ſhore, which is not very cleane, and when, as then you come thwarth of the innermoſt point of the Caſtle before that you begin to fee the Towne off Bayone, from behind the point, you muſt looke well out before you: for from that fame innermoſt point, and from the Caſtle, there lieth of a ſuncken rock about halfe a cables length from the foreſaid point, whereupon remaineth at low water no more then nine or ten foot water, keepe therefore (thwart of it) ſomewhat of from the point. When as you begin to fee the towne of Bayone, then luffe up ſuddenly ſouth and fayle before the Towne, and anckor there in five or ſixe fathom, where you pleaſe, or els that the point of the Caſtle come againſt the weſtermoſt Iland of the two which lye off from the north point of the Bay, or point of Vigo, there it is good oaſie ground that holdeth well, ſet your anckers when you morie, northweſt and ſoutheaſt, the beſt ancker to the ſoutheaſt, from thence over the high land you ſhall have commonly the hardeſt windes.

For to ſaile into Vigo or Cannas from the ſouthwards. If you muſt turn to and againe into the bay, then take very good heed, when you run of from the Caſtle, that you run not too far over ſouthſoutheaſt, right before the Towne, ſoutheaſt and by eaſt, and eaſt ſoutheaſt from the roade about a muskethot, lieth another ſuncken rock, which at low water is unconvereth, it lieth a ſmall cables length off from a little point in the ſouth point of the bay, whereupon ſtandeth a little houſe, to fee to a farre of like a great green rock, you muſt be very carefull of it; eſpecially when you runne over towardes the ſouthſoutheaſt.

But hee that is bound into Vigo or Cannas to the ſouthwardes of the Ilands, ſhall faile in betwixt that fouthermoſt Iland and the point of the land off Bayone, all alongſt in the middle of the channel, northeaſt, or northeaſt, and by north in, at leaſt two great leagues, keeping the norther haven two ſhippes length open, ſo long untill Cannas come to the northward without the point off Vigo: and then hee muſt leave the point of Vigo on the ſtarboardſide off him, and run in (keeping the middle of the channell) betwixt the northland and the Towne Vigo, and anckor there either before Cannas or Vigo, where hee pleaſeth in ten or twelve fathom.

S. Rego. A little to the northwards off Camina, lyeth on the coaſt a high ſteep hill, above in the top with a clift or ſaddle, being called S. Rego, it is allmoſt off fahion like Monte Sauro, but at leaſt once ſo high againe, this hillie a very good mark for to know the places there abouts. Abbout halfe wayes betwixt this hill and Bayone, lyeth an Abbey upon the ſi-

de of

de of the land, that is alſo a good marke for to know Bayone for him that commeth from the ſouthwardes, but the chiefeſt markes are the two foreſayd high Hilles within Bayone, the one with two, the other with three hommocks, when that with the three valleys or ſaddles is e. ſ. e. from you run in then right with it, you ſhall not faile to fall with the land, right with the Ilands.

Camina. Five leagues to the ſouthwards of the Ilands of Bayone, lyeth the haven of Camina, a broad haven, where you muſt go in (with great ſhips) at the heigheſt water. In the havens mouth, which lyeth in northeaſt and by eaſt, lyeth a rock neereſt the ſouth ſide; cloſe to the northwards of this rock, is the deepeſt water, for to ſayle in or out. Within in the haven, on the north ſide, lyeth a little Iland, and upon it ſtandeth a little Tower, you muſt keep that over the Tower which ſtandeth upon the north land, and ſo muſt run in right with them.

In this haven mouth is at halfe flood two fathom water.

At the north ſide of the haven it is altogether ſhowld water, and very rocky oud fowle: there ſhooteth off a ledge of rocks, or riffe, whereof men muſt take good heed.

Viana. Seven leagues to the ſouthwards of Camina lyeth Viana upon a river. From the north poynt lyeth off a ledge off rockes thwart over before the mouth of the river, and upon the ſouth ſhore, ſtand two Fiere-towers. If you will ſayle in to the river off Viana, comming from the northwards, or out of the ſea, then run ſo long to the ſouthwards untill that the two foreſayd Fire Towers upon the ſouth ſide of the rivers mouth, come one to the other, and then run in right with them towards the ſtrand untill that the little Tower upon the north land come over the two houſes, keep them one to the other, and runne then to the rock with the maſt, and ſayle alongſt cloſe to the eaſtward of it, and then you run in alongſt over the Barre or the ſhowldeſt of the rivers mouth, there is at low water with an ordinary tyde two fathom depth. When you are paſt the foreſayd rock with the maſt then you ſhall ſee yet a head another rock with a maſt or beacon, which lyeth on the north ſide of the river: run in likewiſe cloſe alongſt to the ſouthwards of it, and afterwards indifferent cloſe alongſt by the north-land, untill you come before the Town, there runneth of ſometimes a little riffe which you muſt give a birth to, and anckor before the town. When you lye before the towne, there lyeth a little Iland to the ſouthwards of you, where upon ſtandeth a little Chappell: to the weſtwards of that little Iland lyeth a great Banke, which at low water is uncovered, behind that banck it is five and ſixe fathom, and before Viana ſeven, eight, and nine fathom deepe; when you come in, they may run in about to the ſouthwards of this foreſayd Banck, and come out again before the town, by the little Iland, where the little houſe ſtandeth upon.

When you come in about a bow ſhot within the ſecond rock with the maſt, there you may well let fall your anckor and bring Cables on the ſouth ſhore, and morre there by foute cables.

Men may anckor without in the road in 12 fathom, there is the cleaneſt ground for to take in a Pilot. It is narrow and dangerous barre for to come into.

Villa del Conde. From Viana to Port a Port, the courſe is ſouth & by eaſt 12 or 13 leagues, betwixt both lyeth Villa del Conde, ſeven leagues from Viana and from Metelyn. Villa del Conde is a broad haven, before the havens mouth lye many rockes, where men may ſayle in about them on both ſides, to the northwardes orto the ſouthwards of them it is five and ſixe fathom deepe, further in lyeth a banck thwart over the haven of two fathom at high water: within in the haven it is 3 or 4 fathom deepe, on the north ſide it is all full off rocks, which lye moſt under water, but on the ſouth ſide it is deepeſt and ſureſt, and good lying in five and ſixe fathom.

Rockes Leſens. Foure leagues to the ſouthwardes of Villa del Conde lye out the great rocks, called Leſons, right before a little broad haven of two fathom depth, called Mettelyn and ſouthweſt from the ſouth poynt of the foreſayd rockes Leſons; about a halfe league to ſeawards, lyeth a funcken rock under water: betwixt the land and the Leſons it is 6 and ſeven fathom deep.

port a port. A league to the ſouthwardes of the rockes Leſons lyeth Port a Port. From the north poynt of the rivers mouth lye off many rockes, allmoſt thwart over the channell. For to ſayle in there, you muſt run in cloſe alongſt to the ſouthwardes of the outermoſt rock, even ſo neere by it, that you may caſt with a ſtone upon it. There ſtandeth a little Chappell upon the north ſhore right againſt the rock with the croſſe, and alſo a little white houſe upon the north ſhore ſomewhat further up upon the river, bring them one in the other, and run in ſo right with them untill you bee paſt the Caſtle. In ſeyling in ſo, you ſhall not finde leſſe upon the ſhowldeſt of the Barre, then 17 or 18 foot water at halfe floot, and ſhall not come to neere a funcken rock, which lyeth without in the rivers mouth, ſomewhat neerer the ſouth ſhore then the north, whereupon there remaineth at low water no more then 11 or 12 foote water. Being within the Caſtle, goe then right towardes the rock with the croſſe & ſo cloſe alongſt to the ſouthwards of it, that you may reach it with a boat hoock, or els you muſt run in three or 4 ſhippes lengths to the ſouthwards off it, or alongſt by the ſouth-land, untill you bee paſt the rock with the croſſe, for to avoyd a funcken rock, which lyeth thwart of it a little to the ſouthwards of it; and at low water is no more then eight foot under water. Being a little paſt the rock with the croſſe, go then up alongſt in the middle of the channel, untill you come thwart of a great white Tower upon the north-land, there you may anckor in 4 or 5 fathom, or fayle before the Towne, here it is 3 & 4 fathom deepe. A little paſt the rock with the croſſe is a ſhowld, where upon remaineth at low water no more then 11 foot water, ſo that with ſhippes that draw 12 foote water, men muſt ſtay for high water, it ſloweth there ſix foot up and downe with an ordinary tyde.

On the ſouth ſide of the river goeth in alſo a Land-deep to the ſouthwards of the foreſayd funcken rock, wich lyeth in the rivers mouth, where the Pilots ſometimes bring ſhipps in and out, that is a good channell, and oftentimes it is eaſt to againe of the ſea, ſo that there is no certainty to be Written of it that men ſhowld truſt upon.

Of the tydes and courſes of the ſtreames.

On theſe coaſtes, as on the former, as ſouthweſt and northeaſt moone maketh high water.

A ſouthweſt and northeaſt moone maketh full ſea at the foreſaid places, on the ſea-coaſt, and within the havens a point later.

A northeaſt and ſouthweſt Moon maketh theſe coaſts full ſea, like as on all the coaſtes lying on the great ſea, there goe alſo no ſtreames alongſt the land, becauſe (through the ſwelling of the Ocean ſea) the flood commeth right on againſt the coaſtes, and falleth right in and out at the Havens.

Courſes and Diſtances.

From C. de Pinas to Avilles ſ. ſ.w.	3 leagues
From Lanarca to Ribadeus w. ſ. w.	6 leagues
From Ribadeus to Cape de Brilo n.	8 leagues
From C. de Pinas to Ribadeus ſouthweſt and by weſt,	13 or 14 leagues
From C. de Pinas to Oreagall weſt and by north weſtwardly	29 leagues

How theſe landes doe lye one from the other, and from other landes.

From Cape Oreagall to Siverus ſouthweſt.	5 leagues
From Siverus to Cape de Prior ſ. w.	5 leagues
From Cape de Prior to Feroll ſouth and by eaſt	3 leagues
From Feroll to the Groyne ſouth, and ſouth and by weſt,	3 leagues
From the Groyne to Cilarga	8 leagues
From Cilarga to Queves, ſouth and by weſt, and ſouthſouthweſt	2 leagues
From Cilarga to Cape de Bylem, or the eaſt poynt off Monſy, ſouthweſt and by weſt, and weſtſouthweſt,	11 or 12 leagues
From Cape de Bylem to C. de Coriane, or Torrivian ſouthweſt.	3 leagues
From Cape de Coriane to Capo de Finiſterre ſ.	3 leagues
From Cape de Oreagall to Cape de Prior ſouthweſt,	10 leagues
From Cape de Oreagall to Cilarga ſ. w. and ſ. w. and by weſt	19 leagues
From Cape de Prior to Cilarga ſouthweſt and by weſt,	nine leagues
From Feroll to Cilarga weſt and by ſouth	8 leagues
From Cape de Oreagall to Cape de Corim ſouthweſt & by weſt	33 leagues
From cape de Oreagall to Water ford in Ireland north,	168 leagues
From cilarga to cape Veio north	260 leagues
From cilarga to Silly north and by eaſt	137 leagues
From cape de Finiſterre to Moores, or Monte Lauro ſoutheaſt	5 leagues
From Rio Roxo to ponto Vedra ſ. ſ. w.	4 leagues
From Ponte Vedra, or Blydones, to the Ilands off Bayone ſ. ſ. e.	5 leagues
From Bayone to camina ſouth and eaſt	4 leagues
From cape de Finiſterre to the Iland of Bayone, the courſe is ſ. e. and by ſouth	18 leagues
From cape de Finiſterre to port a port ſ. ſ. e.	44 leagues
From cape de Finiſterre to Avero ſouth and by eaſt	53 leagues
From cape de Finiſterre to the ſturlings ſouth	67 leagues
From cape de Finiſterre to the great canaries ſ. ſ. w. ſoutherly	307 leagues
From cape de Finiſterre to the Salvages ſouthſouthweſt,	275 leagues
From cape de Finiſterre to the Ile of Madera ſouthweſt and by weſt ſoutherly	297 leagues
From cape de Finiſterre to the Ile S. Michael weſtſouthweſt	207 leagues
From Cape de Finiſterre to the Ile Tercera weſt ſouth weſt and weſt and by ſouth.	298 leagues
From Cape de Finiſterre to the ſouth weſt point of Ireland n. and by weſt and north	173 leagues
From cape de Finiſterre to cape de clavo North.	173 leagues
From cape de Finiſterre to Waterford, or the ſoutheaſt poynt of Ireland, north and by eaſt	185 or 186 leagues
From cape de Finiſterre to the Lizert northnortheaſt,	153 leagues
From cape de Finiſterre to the Scames, north eaſt and by north northerly 112 leagues.	122 leagues
From cape de Finiſterre to Bell-Ile n. e.	20 leagues
From Avero to the Burlings ſ. w.	49 leagues
From Bayone to the Burlings ſ. and by w.	

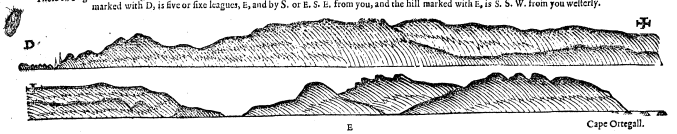
Heights.

cape de Oreagall lyeth in	44 degrees 5 minuten
cape de coriane in	43 degrees 8 minuten
the cape de Finiſterre lyeth in	42 degrees
Bayone lyeth in	42 degrees 10 minut.

How

How theſe Lands doe ſhew themſelves at Sea.

Theſe two figures following belong at croſſes one to the other, and ſhew the riſing of the Land, a little to the eaſtwards off te Cape Oreagall, when the poynt marked with D, is five or ſixe leagues, E, and by S. or E. S. E. from you, and the hill marked with E, is S. S. W. from you weſterly.

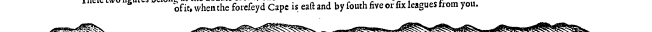


Thus ſheweth Oreagall, when it lyeth S. E. and by S. from you.

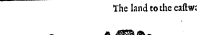
When Oreagall is ſoutheaſt from you, it ſheweth it ſelfe thus.

Thus ariſeth Oreagall, when the eaſtermoſt hill lyeth ſouthſoutheaſt from you, and that you may ſee the eaſt end with cleare ſinghe, being eight, nine, or ten leagues off at ſea.

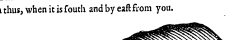
Theſe two figures belong at the double croſſe, one to the other and ſhew the Cape Oreagall, with the land to the weſtwards of it, when the foreſayd Cape is eaſt and by ſouth five or ſix leagues from you.



The land to the eaſtwards of the Groyne ſheweth thus, when it is ſouth and by eaſt from you.



Cape Prior the eaſt poynt of the Groyne ariſeth in this forme.



Cape prior being ſouthweſt from you 6 or 7 leagues ſheweth it ſelfe thus.

Cape Prior, being ſouthweſt and by ſouth from you 4 or 5 leagues, ſheweth it ſelfe thus.

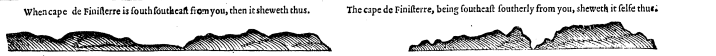
When the Cape Prior is eaſt and by north, eaſterly 3 or 4 leagues from you, it ariſeth in this forme.

Thus ſheweth the Iland of Cilarga, when you are one league thwart from it.

Thus ſheweth the land of Mon fie, betwixt Cilarga, and cape de Finefferre, when you come from the eaſt, and ſeyle alongſt by it.

When cape de Finiſterre is ſouth ſoutheaſt from you, then it ſheweth thus.

The cape de Finiſterre, being ſoutheaſt ſoutherly from you, ſheweth it ſelfe thus.



Thus ſheweth cape de Finiſterre when it is ſoutheaſt eaſterly from you.

When cape de Finiſterre is S. E. and by eaſt from you 5 or 6 leagues then it ſheweth it ſelfe thus.

Thus doth cape de Finiſterre ſhew it ſelfe 5 or 6 leagues eaſt and by ſouth from you.

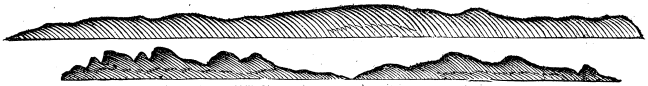
Monnick.

Theſe three figures following belong one to the other, at the letter AA, and BB, and ſhew the riſing of the capes de Coriane and Finiſterre, as is ſhewed in the diſcription here under following.

The cape de Finiſterre ſheweth it ſelfe with the land o the ſouthwards of it, as is portrayed in this and the figure following, when the ragged hill ſtandeth eaſt from you 3 or 4 leagues, and then ſhall ſee the land to the northward of it unto cape Coriane, northeaſt, unto pall cape Coriane, in forme, as in the figure before this

This followeth the former, and lyeth from the cape of southeast and by south.

Thus sheweth the cape de Finisterre, when the ragged hill lieth eastnortheast easterly from you, and then the land of Moores lyeth from you eastnortheast, as is here following demonstrated.



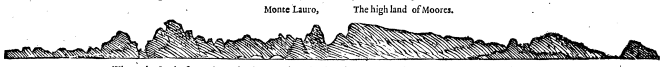
Thus sheweth the ragged hill of the cape de Finisterre, when it lieth east and by north from you.

When the cape de Finisterre lieth northeast from you, and the land of Moores eastnortheast fixe leagues from you, then lieth the cape in three parts, and the land of Moores thus.

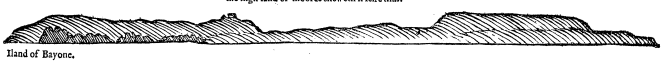
When the ragged hill betwixt the cape de Finisterre and Moores lieth east and by north from you fix leagues off, then it sheweth thus.

When the high land of Moores is northeast and by north from you about 6 leagues, then it riseth in this forme.

Monte Lauro, The high land of Moores.



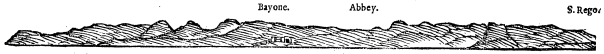
When cabe de Finesterres is northeast or northnortheast, and Monte Lauro is eastnortheast five leagues from you the high land of moores sheweth it selfe thus.



Iland of Bayone.

Thus shew themselves the Ilands of Bayone, and the high land to the southwards of them, when the foresaid Ilands are eastsoutheast, a league or two from you.

Bayone. Abbey. S. Rego.



When the point of Bayone is eastnortheast, and the high land is east from you, then it rise thus, to the southwards of it lieth the high Hill of S. Rego.

Bayone. Abbey S. Rego.

When the high Hill S. Rego is east from you, then the high land of Bayone sheweth it selfe thus. The Abbey standeth about halfe wayes betwixt S. Rego and Bayone.

S. Rego.

Thus sheweth the coast of Polingall from Bayone to cape montego, when you saile alongst by it, about foure leagues off, the figure following belongeth hereto, at the crosses one to the other.

Cape de montego.

When that black Hommock where the hand standeth by, is eastsoutheast from you, then are you thwart of, or open before Avero.

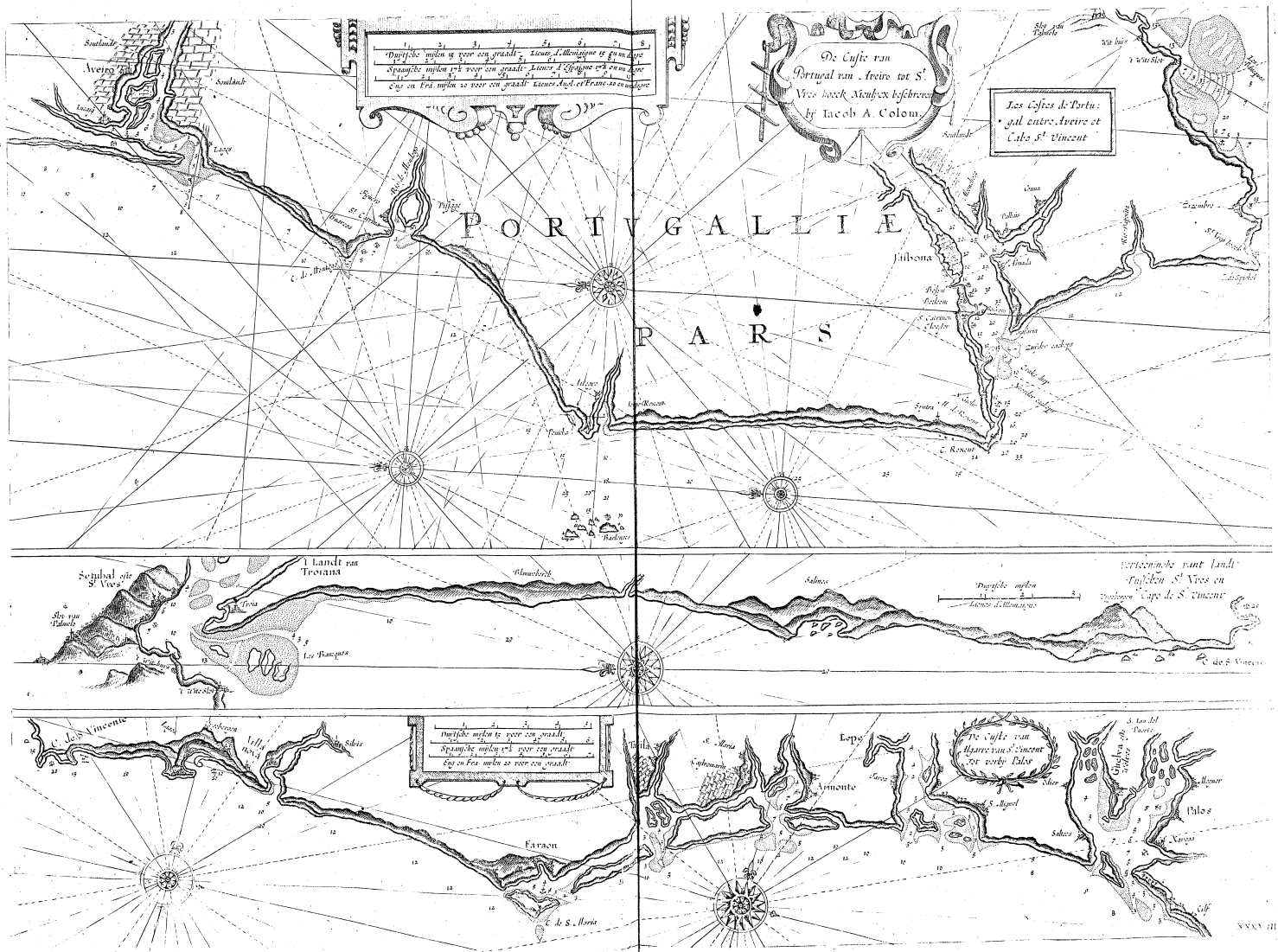
The high land of Viana

Thus sheweth the land of Viana, and to the southwards of it the Hommock by B is 4 leagues to the northwards of Villa de Conde.

The high land of Viana.

The land by Viana, and to the southwards of it towards Villa de conde, sheweth as is portrayed in this and the figure following, by V, is the rivers mouth of Viana.

This


De Custe van Portugal van Aveiro tot S.t Vres hoeck Mouwex beschreven bij Iacob A. Colom.
Les Costes de Portu: gal entre Aveiro et Cabo S.t Vincent
PORTVGALLIÆ
PARS
Aveiro
Soulande
Lisbona
Setubal ofte S.t Vres
T Landt van Troiana
Vertoninghe vant landt tusschen S.t Vres en Cabo de S.t Vincent
Cabo de S.t Vincent
Faraon
C. de S.t Maria
Palos

Ville de Conde.

This followeth the former figure, the Hommock at C, is two leagues to the northwards of Villa de Conde.

The high land of Viana.

Thus sheweth the forefaid land of Viana, and to the fouthwards of it, when Viana (being by A) is northeaft from you 10 leagues

Metelyne thwart from you.

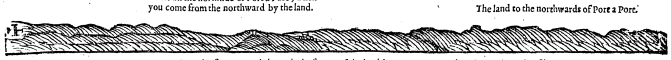
Rockes about a league to the north of Metelyne.

Rocks of Metelyne.

Thus sheweth the land by Metelyne, when Metelyne is thwart from you and that you are close by the land.

Castle on the northside of Port a Port, when you come from the northward by the land.

The land to the northwards of Port a Port.



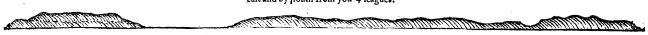
This figure belongeth to the former, and sheweth the forme of the land by port a port, and to the fouthwards of it, when you come from the fouthwards, you shall see a little village, with in the castle of port a port, called S. Iohn. A league to the northwards of it lyeth Metelyn.

The land to the fouthwards of port a port.

Avero.

Thus sheweth the land betwixt port a port and Avero, when the high land to the fouthwards of Port is east and by south from you 4 leagues.

Abbey



Thus sheweth the land of Port, when you come from the fouthwards.

Thus sheweth the land of Port a port, when it is eastsoutheast from you about foure leagues.

Viana

Villa de Conde.

Port a Port.

Thus sheweth the land from the northwards of Viana to Port a Port, when you sayle alongst by it.

Port.

When port a port is southeast from you seven or eight leagues, then it sheweth with the land to the northwards of it in this forme.

The fourth demonstration.

In which the coastes from Port a Port to Palos are deciphered.

FRom Port a Port to Avero, the course is south, ten leagues: betwixt them both it is all alongst a cleane sandstrand, where men may behold to come neere the shore every where in ten or twelve fathom.

Within the land upon the high land lieth a black hommock in the land, when that lieth eastsoutheast from you, then you are open before Avero: when you cannot see the black hommock Cormole, then lieth there a rough sand-hill to the northwards of the Barre, when that is thwart of you, then are you a halfe league to the northwards of the Bar of Avero.

If you will saile in over the Barre of Avero, and that you come before it five or seven fathom, then take heed to three beakons made off mast which stand upon the south-land, bring them one in the other, and saile in so right with them east and by south, and E. S. E. in over the barre, there is in comming in, at halfe tyde, no more then two fathem water, untill that you come by the beakons, you shall so (being come within the points) sayle alongst by a dry sand on the larboard side, edge then upnorthnortheast, and northwest about by that forefaid dry sand, untill you come close to the norther-land, and run in by it, and then you shall leave all other showlds on the starboard side, untill that you see the river open, and then you shall see a little house upon the strand on the west side, goe them from thence up into the river, east and by south; and eastsoutheast, keeping the middle of the channell betwixt the two lands, untill you come before the Saltponds or Avero, where you may lade your ship with salt.

The Coast of Poltingall about Viana, is very good to bee knowne, by the forefaid hill of S. Rego, which is exceeding high, and lieth on the sea side: the high land of Viana, lieth two or three double within it.

Betwixt Viana, Villa de Conde, and Port a Port, men shall see alongst the coast many towers and littele houses, Villa dell Conde men shall see at sea like a great Towne.

The River of Port a Port men may know by the rocks Lefons, they are very high, and lye a little to the northwardes of the River.

The Cape de Montego is a high point, and within it in the land are high mountains. The Cape is somtimes taken to be the Rock, but it is easie to be discerned from it, because of the Burlings, which lye here to the southwards, and to the northwardes of the rock.

The Cape de Montego lieth from Avero S. S. W. distant 7 leagues: a league to the southwards of it lieth Piffage, or the River of Montego, a broad haven. From the Cape de Montego runneth of a rowle ledge of Rocks, a good wayes from the shore, which men must a voyd. Under the Cape men may ride for northerly winds in 7 or 8 fathom, a northnorthwest wind commeth right from the point, for southerly windes men may anckor to the southwards of the river of Montego.

From the south point of the river runneth of a sand-riffe; when you saile in there, and that you come in out of the sea, it sheweth as if you might saile into the fouthwards off that riffe, but it is not to be done: you must sayle into the northwerds

werds off it. Upon the north point ſtandeth a little village S. Catherina, and a little to the northwards ot it a Fither village, called Buarcos. Upon the north ſide within the havensmouth ſtandeth a lime kill, with a wood off Fig-trees, when you bring them one in the other, and then faile fo right in with them, you runne in right in the channell, there is fometimes no more then twelve or thirteene foot water at a halfe flood: you may not certainly truſt to the deſcription of this haven, for in regard it is there ſand-ground, it doth ſhift fometimes with the great Freſhuts that come of the River, and alſo with ſtormes out of the ſea. From Cape de Montego to Peniche, or Nova Liſbona, (at the Cabo del Fiſiron, which is the point within the Burlings) the courſe is ſouthweſt and by ſouth ten leagues, there lieth of a rock from the point, to the ſouthwards of it is a great bay, where men may run in behind it with barks, and lye landlockt. In that bay lyeth a little town againſt the high land called Artogie, a little to the ſouthwards of the Cape del Fiſiron lieth a high round hommock, which the Dutchmen call yong Roxent.

From the cape Montego to the Burlings, the courſe is S.W. twelve or thirteene leagues. Behind the Burlings is a good roade and ancker ground, under the great Iland before the Ermitage, then you may anckor in ten fathom, you may come in there from the northwards or from the ſouthwards, it is there broad and wyde, and every where cleane.

From the Burlings to the Rock, or Roxent, theſe courſe is ſouth and by eaſt, and ſouthſoutheaſt ſixteen leagues, but from the cape del Fiſiron (behind the Burlings) to the Rock, the coaſt lyeth ſouth and north fifteene or ſixteene leagues. The Rock or Roxent is a point of land, very good to be knowne, although you be a great wayes of, yet you ſhall allwayes ſee the ſharpe hoanmock of the Abbey of Syntra.

A great league to the eaſtwards of the point of Roxent, or the Rock, lieth the road of Cafcalis, where men may lye landlockt for a northweſt, north, and northeaſt winde, in 12 or 13 fathom, fo deep, or ſhowld as they will. A great league to the eaſtward of Cafcalis, lieth the point of S. Julian, or S. Gillians, whereupon ſtandeth a ſtrong caſtle, that is the north point of the River of Liſbone, the norther channell of the River goeth in within a bowles caſt alongſt by it.

Cafcalis.

S. Gillias, or S. Gillians.

For to faile in at the norther channell.

For to faile in ongſt within the length off a maſt alongſt by the forefayd poynt, but comming before the caſtle of S. Gillians, you muſt edge ſomewhat over towards the Carrich deepe, for to avoyd ſome fowle ground and rocks, which lye on the eaſt ſide of the Caſtle. Being paſt that a little, you may luffe up againe towardes the north ſhore, and faile alongſt by it to Reſtiers, and ſo forth even to Liſbone, men doe commonly anckor before the Village of Boelyn in twelve or thirteen fathom. Men muſt take heed not to come into this channell with calme weather, and with an ebbe, which falleth very ſtrong upon the norther Cachops: this channell of S. Gillians lieth in eaſt and by ſouth, being within, you muſt faile ut eaſtnortheaſt, and northeaſt and by eaſt, and when you come againſt the Abbey at Reſtiers, then you muſt edge ſomewhat over towards the ſouth-land, elſs you muſt keepe the north-land alongſt.

For to faile into the Carrick-deepe.

For to ſayle in the Carrick deepe, you ſhall bring Cafcalis over the weſt point of Roxent, and keepe it ſo, untill that the litle Tower (which you ſhall ſee ſtand above the Abbey at Reſtiers) come over the white Abbey which ſtandeth the fartheſt from Reſtiers, to wit, over S. Catherines Abbey or Cloyſter, goe then northeaſt, and northeaſt and by north in, keeping theſe marks ſtanding thus, untill that you come within the point off S. Gillies, and then goe in alongſt by the north-land to Reſtiers within the Caſtle, and anckor there where you thinck it beſt. Upon theſe markes you may fayle in and out at the Carrick deepe. If you come from the weſtwards, and will goe in to the Carrick deepe, then bring Cafcalis over the weſtend of Roxent, and faile ſo about the norther Cachops, untill that the town of Liſbone come within two ſhips lengths neere to the ſouth-ſide of the River, and then further in northeaſt and by north, when as then you ſhall ſee the ſand-bay within the point of S. Gillians, then are you in the right fareway.

But if it ſhould happen, that you could not ſee the towne, or the litle Tower, then keep the ſand-bay (which lieth within S. Gillians point) northeaſt and by north from you and faile ſo northeaſt and northeaſt and by north in, and take the ſounding of the norther Cachops in eight or nine fathom: when you begin to come againſt S. Gillians point, faile then indifferent cloſe along by the northland, as is beforeſaid.

He that will turne out or in to the Carrick deepe, muſt bring the foreſayd litle tower that ſtandeth within the land, a ſhips length to the ſouthwards, and a ſhips length to the northwards of the foreſaid Abbey or Cloyſter of S. Catherines, & then caſt about every time, & ſo turne to and againe out and in. then caſt about every time, & ſo turne to and againe out and in.

Alſo come not with calmes in this channell, (neither bound inwards nor outwards) with an ebbe, for it falleth very ſtrong over the eaſt end of the Cachops.

If you will run out at the Carrick deepe, you muſt looke out for the foreſaid litle Tower: when it commeth out from under that high land, bring it then a little to the weſtwardes of the ſecond white Abbey or Cloyſter, and goe away ſouthweſt and by ſouth, and then the litle tower ſhall come to the Cloyſter.

But if you muſt turne out to and again, then you muſt be very carefull of your tyde, for the ſtreames fall very ſtrong over the Cachops, ſo that it is very dangerous with calmes to come in or out at theſe channels, but eſpecially in failing out with an ebbe, for it falleth thwart over the Cachops.

From Roxent to S. Uves point, the courſe is ſoutheaſt and s. Uves by ſouth 10 leagues, that is alſo a point good to be known, by point. a high round hill which lieth on it, alſo men ſhall ſee the top of the caſtle of Siſembre upon a flat hil like a great top or ridge of a country houſe.

S. Uves point is called cape de Pitcher, and by the Dutchmen Cape de Spichel, a little to the ſouthwards about the point, is a rent or cliff in the land, before it is good riding in 9 and 10 fathom. Before Siſember men may alſo anckor in 15 or 16 fathom.

Five leagues to the eaſtwardes of cape Pitcher, or S. Uves point, lieth S. Uves, there lieth a great rock before the Haven of S. Uves mouth. Beneath the high land upon the water ſide, ſtandeth a white Caſtle, when that is northnortheaſt from you, then are you right before the havens mouth.

Road under cape S. Uves point.

If you will faile over the bancks into S. Uves comming of from C. Pitcher, or S. Uves point, then keepe the weſt point in ſight of Siſember a ſhips length without the eaſt point, and goe then eaſt, and eaſt and by north on, untill that the caſtle of Palmelo which ſtandeth above S. Uves, commeth in a valley over the foreſaid white Caſtle upon the weather ſide. Saile then northnortheaſt right in with them, until you come within the Caſtle ſtandeth upon the weather ſide, and then in along within a cables length by the north land, northeaſt and by eaſt, until you come before the Towne of S. Uves, or Setuball. But when the Caſtle off Palmelo commeth under the land, that you can not ſee the fame any more, there ſtandeth alſo a white houſe on the north-ſide of the Caſtle that ſtandeth on the water ſide, keepe that then ſo ſtanding, and run in right with them, untill you come within the white Caſtle, and goe then in (as before is ſaid) alongſt by the north land, untill you come before the Towne of Saint Uves, and anckor by the ſame Towne, before the Eſther village, in fixe or ſeven fathom. Upon the Bancke is at halfe flood three fathom and a halfe water, when you ſaile in over it, you ſhal finde at leaſt ſeven divers ſhowlds. There goeth in alſo a channell alongſt by the ſouth-land, but that is onely for barkes: betwixt the ſoulther channell and the right deep lye the banckes at ſome places ſo ſhowld, that they lie allmoſt above water.

For to ſayle in the bancks before S. Uves.

For to finde the deepeſt water in failing out over the bancke of S. Uves, with ſhippes that draw much water, doe thus: when you faile out from the white Caſtle, then bring the foreſaid white houſe over the north ſide of the Caſtle, that ſtandeth on the water-ſide, ſo that you may fee directly through betwixt them, and keepe them ſo ſtanding, untill S. Uves point begin to come without the eaſt point of Siſember, then bring the white houſe to the ſouth-ſide of the Caſtle, an run ſo out, you ſhall have there the deepeſt water. But when you can ſee that Caſtle of Palmelo, that is a direct alongſt marck for to run over the bancke: And then that white Caſtle muſt be from you N. N. B. northerly.

It is from S. Uves point to C. de S. Vincent ſouth and ſouth eaſt and by eaſt 29 leagues betwixt both are no knowne havens, Salines. alſo a little river lying halfe wayes, is alſo unknown.

From S. Uves to Cape S. Vincent, the coaſt lieth moſt ſouth and by weſt about 32 leagues, betwixt both lie ſome high ſteep hills, which men doe call the Salines, which are very good marks for to know this coaſt by, But above al ſerve for to knowledge of this coaſt of Algarve, or of the cape de S. Vincent, the Vigebergen, or Mount Chigo, which lye within Lagos and may be ſeen farre of a tea. A haſte league to the northwards of cape S. Vincent lieth a high cliffe in the land, that is ſomewhat whitiſh, and higer then the other land; when you ſee that, then you are by the cape de S. Vincent. Upon the point of the cape ſtandeth a broken Abbey or Cloyſter, and cloſe by the point lieth a high rock, being called by the Dutch ſailers Mommickſtrand.

A little about the point of the Cape S. Vincent men may anckor

anckor in a ſand-bay, for a north and northweſt wind in twenty fathom.

About the ſecond point, to the eaſtwardes off the cape, is another ſand-bay, there is a good road for a northweſt and N. winde in 14 or 15 fathom. From the Cape de S. Vincent to Cape S. Maries, or Faro, it is eaſt or a little more ſoutherly nineteene or twentie leagues: betwixt them both lye Lagos, or Laves, and Villa Nova. From Cape S. Vincent to Lagos, it is eaſt and by north 7 leagues, there is a tyde-haven through betwixt the rockes, behind a ſtrand of chindle, which falleth dry at low water, men may alſo ride there for a northweſt, weſtnorthweſt, and northweſt, in 10 or 12 fathom.

Road under cape S. Vincent.

Villa Nova.

Villa Nova lieth about foure leagues to the eaſtwards off Lagos, betwixt both, three leagues from Lagos, and one from Villa Nova, lyeth a ſuncken rock, where off men muſt take heed. Villa Nova is a good haven, it lyeth in north, and north and by weſt: at halfe flood you ſhall have there two fathom water; within in the haven on the eaſt ſide lyeth a little iland or rock, and upon it ſtandeth a Tower or little houſe, alſo there ſtands upon the land a great maſt with a barrell upon the top of it: when the little Tower, or little houſe, and the maſt come one in the other, then you muſt ſayle right in with them into the haven, alongſt by the eaſt land untill you be paſt the little Tower, the weſt ſide is flat and ſhowld, when that you come by the maſt, then you muſt goe up to the weſtwards before the towne of Villa Nova, there you may anckor in foure or five fathom.

Faro.

From Villa Nova to Faro, or Cape de S. Maria, it is about 9 leagues. Upon the ſtrand ſtandeth a fire-tower, and from the point ſhooteth of a riffe which men muſt avoyd, into the haven of Faro men muſt goe in from the eaſt wards, it lyeth weſt, and w. n. w. in, and they muſt leave the tower on the larboard ſide, and run in two or three fathom, being within, they may anckor over againſt the Towne of Faro under the iland in three fathom, it is upon the barre at halfe floot two fathom deepe.

The Cape S. Maries ſheweth it ſelfe at ſea (when you firſt ſee it) in one round hommock, which is a good mark for to know the whole coaſt of the Candado by.

Five leagues northeaſt and by eaſt from Cape S. Marria or Faro lyeth Tavila, that is a crookedſhowld Barre, which allmoſt every yeare doth ſhift, and is not to truſt to for to ſayle into it, unleſſe it where firſt beakond, orſet with buyes, it is a halfe flood ſcarce two fathom deepe, men lye there a little within the ſand-hills in foure fathom.

From Tavilla to Ayemount, the courſe is E.N.E. 5 leagues. Ayemont is a deepe Barre, and one of the beſt havens in the whole Condaet, it lyeth in northweſt by the eaſtland, at halfe flood it is three fathom deepe; there lyeth ſome ſhowlds before the havens, the markes there off are theſe. There ſtandeth a tree upon the eaſt ſide of the haven or rivers mouth, when Ayemonte commeth right againſt over the tree, then are you to the eaſtwards of the ſhowlds or ſands, which lye before the haven, then you muſt goe towards the foot ſtrand, and leade it in alongſt by it northweſt, and northweſt and by weſt, when you are within, you muſt goe up to the northwards before the Town, or if you will goe before Porte Maria, the northweſt courſe will bring you there, within it is wide and broad, and fixe or ſeven fathom deepe.

There goeth in alſo a haven by the weſtland, where men com in, right out of the ſea, but that by the eaſtland is the beſt.

Leepe.

From Ayemont to Leepe, or S. Michiels the courſe is eaſt and by north ſeven leagues. Leepe hat uncertain bars, which oftentimes ſhift, where men may not truſt themſelves to ſayle into without a Pilot, the Barre that goeth into the eaſtwardes of the great iland, is held to be the beſt, from thence they muſt goe up to the weſtwards towards Taron, and the River, and ſo come to Leepe, and there they take their lading in before the deepe.

S. Michiels

The Barre of S. Michiels was wont to run thwart over into ſea, and to be at halfe floot three fathom deepe, and before S. Michiels five fathom: from thence men may come through within over the ſhowlds at high water into the River at Leepe.

Taron.

Alſo men were wont to come in by Taron, but for certainty it is needfull to take in a Pilot for theſe Barres.

Palos, Saltees.

From S. Michiels to Palos, or Saltees, the courſe is eaſt and eaſt and by ſouth 7 leagues, here men ſayle into the great Condaet, this haven goeth in at the weſt end of the Rooduyn, there ſtandeth a graet broad tree to the weſtwards off that white cliffe, that you muſt keepe over a red ſand-hill, like as if it were red reath: this ſandhill goeth ſloping downe: runne in upon theſe markes unto the ſtrand, about north and north and by weſt, then ſhall the tower Odier which ſtands above Wolves, come over the eaſt ſide of the havens mouth, keepe them

Wolves.

ſo ſtanding, and ſayle alongſt by the ſtrand, within two cables lengths untill you come about the poynt, and then you run up north to Palos or northweſt to Wolves, and anckor there in fix or ſeven fathom.

It is deepe there within, fixe, ſeven, and alſo three and foure fathom in ſayling up, according as men doe ſayle farre up, or els not, this Barre is upon the ſhowldeſt at halfe flood three fathom and a halfe, but within it is five fathom deep.

There commeth alſo a channell running out of the ſea betwixt the ſands, then Wolves commeth to the eaſt-ſide of the havens mouth, and men ſayle n. n. w. in, when they are within the havens mouth, then they muſt doe as before is ſayd. This channell is three fathom.

For knowledge of the land hereabours you: ſhall underſtand that at the weſt end of the Rooduyn, lyeth a white ſteepe land, cly ffy, being reddiſh earth or chalke: he that falleth there with, may thinck that he is by the havens mouth of Saltees, upon it ſtand ſome little wood of trees, els the land is all without trees, reddiſh ſand, therefore called Roduyn, or Red ſand-hill.

Of the tydes and courſes of the ſtreames.

A ſouthweſt and northeaſt moone maketh at all theſe places (on the ſea ſide) high water, and within in the havens a point or two later, according as they lye farre within the land.

As on all the coaſtes of Portingall, even ſo here alſo on theſe coaſts a S. W. and northeaſt moone maketh the higheſt water.

A ſouthweſt and northeaſt moon maketh on theſe coaſts full ſea, within the havens a point or two later, according as they lye far within the land.

A northeaſt and ſouthweſt moone maketh high water at the C. S. Vincent, and at the C, S. Maria, alſo on the coaſts lying betwixt them both.

But to the eaſtwardes on the Condaet maketh full ſea a ſouthweſt and by ſouth and ſouthſouthweſt moone.

Courſes and Diſtances.

From Camita to Viana ſouthſoutheaſt	7 leagues
From Viana to Villa del Conde ſouth and by eaſt	7 leagues
From Villa del Conde to Port a Port ſouth and by eaſt	5 leagues
From Porta port to Avero ſouth	10 leagues
From Avero to cape de Montego ſouthſoutheaſt	7 leagues
From port a port to the Burlings ſouthſouthweſt and ſouthweſt and by ſouth 29 leagues.	
From Avero to the Burlings ſoutheweſt	10 leagues
From cape de Montego to Peniche, or cape del Fiſiron ſouthweſt and by ſouth 20 leagues	
From cape de Montego to the Burlings ſouthweſt	21 leagues
From cape del Fiſiron, or nova Liſbona, to the Rock, or Roxent ſouth 17 or 18 leagues	
From the Burlings to the Rock, or Roxent, ſouth and by eaſt, and ſouthſoutheaſt	16 leagues
From the Burlings, to the cape S. Vincent ſouth and by eaſt	55 leagues
From the Burlings to the great Canaries, ſouthſoutheaſt	248 leagues
From the Burlings, to the ſtand palma ſouthweſt and by ſouth	216 leagues
From Roxent to the C. Pitcher, or S. Uves point ſoutheaſt and by ſouth 10 leagues	
From cape Pitcher, the cape S. Vincent ſouth and ſouth and by eaſt	29 leagues
From Roxent to cape S. Vincent ſouth and ſouth and by eaſt	37 leagues
From Regent, or the river of Liſbone, to the great Canaries ſouthſouth weſterly	180 leagues
From the river of Liſbone to the Ile de Salvages ſouthweſt and by ſouth 20 leagues	
From the river of Liſbone to Porto Santo ſouth weſt	160 leagues
From the river of Liſbone to the Ile Madera ſouthweſt	173 leagues
From the river of Liſbone to the Iland Tercera weſt	373 leagues
From the cape S. Vincent to lagos, or laves eaſt and by north	7 leagues
From Lagos to Villa Nova eaſt	4 leagues
From Villa Nova to cape Maria, or Faro eaſt and by ſouth	9 leagues
From cape S. Maries, or Faro, to Tavila, northeaſt and by eaſt	5 leagues
From Tavila to Ayemonte eaſtnortheaſt	5 leagues
From cape S. Vincent to cape S. maria eaſt	29 leagues
From cape S. Maries to Leepe, or S. Michiels eaſtnortheaſt	17 leagues
From cape S. maries to Saltes eaſtnortheaſt	24 leagues
From cape S. Vincent to cape Cantin ſouth	87 leagues
From cape Vincent to cape de Geer ſouth weſterly at leaſt	233 leagues
From cape S. Vincent to the Iland Lanzerote ſouthſoutheaſt	86 leagues
From cape S. Vincent to the great Canaries, ſouthweſt and by S.	210 leagues
From cape S. Vincent to the Ile de Palma ſouthweſt	224 leagues
From cape S. Vincent to porto Santo ſouthweſt and by weſt	139 leagues
And to Madera ſouthweſt and by weſt	117 leagues
From cape S. Vincent to the Ile de S. Maria weſt	244 leagues
From cape S. maria to Sibeio eaſt	29 leagues
From cape S. maria to the ſtraite e. ſ. e. and ſ. e. and by e.	41 leagues
From cape S. maria to cape Cantin ſouth and by weſt	90 leagues
From cape S. maria to the great Canaries ſouthweſt and ſouthweſt and by ſouth	280 leagues
From cape S. maria, or Faro, to the Ile de madera ſouthweſt and by weſt 93 leagues.	

Heights.

Port a Port lyeth in	41 degrees
Avero in	40 degrees 16 minuten
Cape de montego lyeth in	40 degrees 8 minuten
The Burlings in	39 degrees 40 minuten
Roxent lyeth in	38 degr. 53 min. or as ſome hold in 39 degrees
Cape Pitcher, or S. Uves point lyeth in	38 degrees 17 minut.
The cape de S. Vincent and S. maria lye in	37 degrees

How these Lands doe shew them selves at Sea.

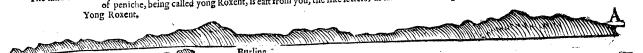
The cape de Montego being northeast from you foure or five leagues with the land to the southwards of it sheweth it selfe as is portrayed in this and the figure following at the letters A A they belong one to the other.

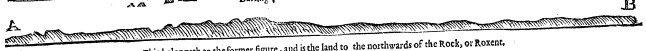
Thus belongeth to the former, and is the land to the southwards of montego, untill thwart of the Burlings.

Thus then shew the Burlings when the northermost are east from you a league.

The land betwixt Peniche and Roxent, or the Rock, sheweth it selfe as is portrayed in these three figures following when the high land to the southwards of peniche, being called yong Roxent, is east from you, the like letters as AA and BB belong one to the other.

Yong Roxent.





This belongeth to the former figure, and is the land to the northwards of the Rock, or Roxent.

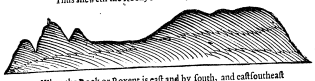
Roxent.

This followeth to the former figure, untill Roxent, or the rocke, at the BB one to the other.

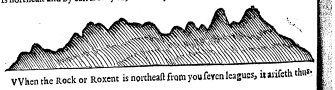
Yong Roxent northeast and by east.

Roxent south and by east.

Thus sheweth the Rock, or Oxent, when it is south and by east, and yong Roxent is northeast and by east from you, and that you are close by the land.



When the Rock or Roxent is east and by south, and eastsoutheast from you seven leagues, it sheweth it selfe thus.



VVhen the Rock or Roxent is northeast from you seven leagues, it ariseth thus.

The land to the eastwards or to the southwards of Roxent towards Reffiers, sheweth it selfe as standeth portrayed in this and the figure following.

This belongeth to the former.

Thus sheweth the Coast betwixt the River of Lisbone, and S. Uves point, called C. Pitcher.

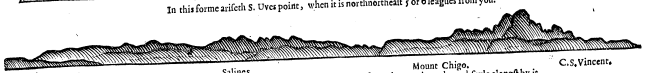
Thus sheweth S. Uves point when you come from the northwards.

Thus sheweth S. Uves point when it lyeth east and by north 6 leagues from you

Thus sheweth the Cape S. Vincent, when it lyeth N. w. 7 leagues from you.

Thus sheweth S. Uves point when it is northeast and by north foure or five leagues from you.

In this forme ariseth S. Uves point, when it is northnortheast 5 or 6 leagues from you.



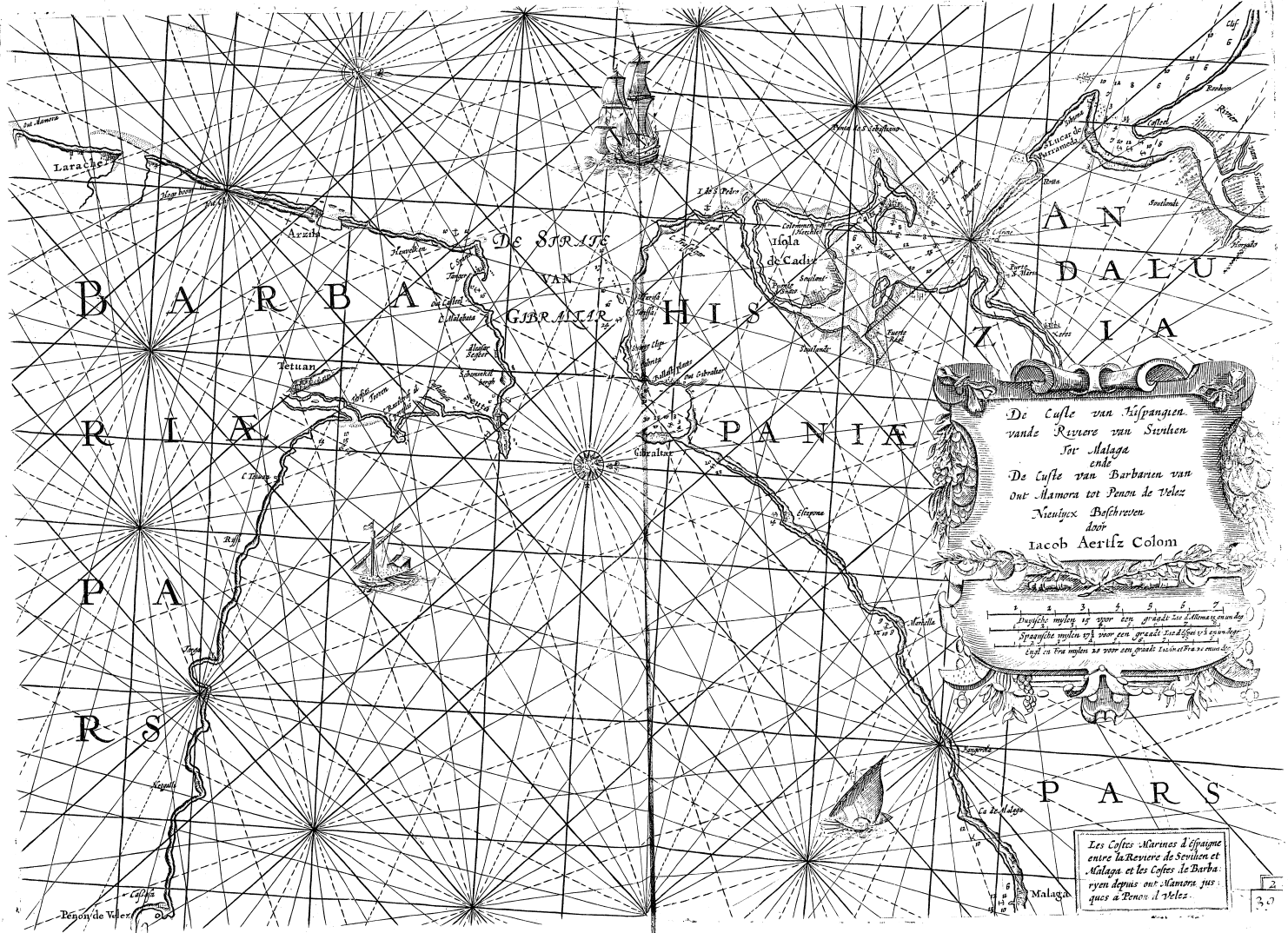
Thus sheweth the land about the C. de S. Vincent, when you come from the northwards, and sayle alongst by it.

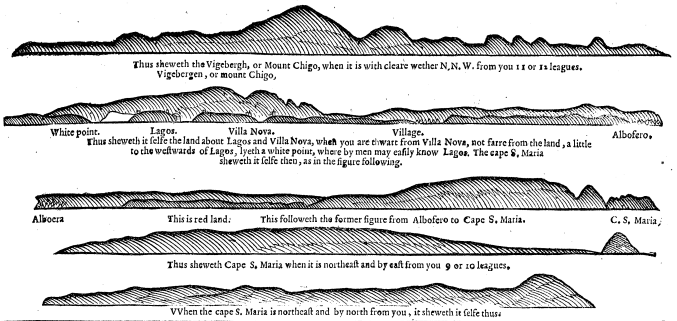
Cape S. Vincent.

Mount Chigo.

The cape de S. Vincent sheweth thus, when it is north and by east, and northnortheast from you about 8 leagues. The Vighebergh or Mount Chige lyeth then northeast and by north from you, in forme as is here portrayed.

VVhen the Vigebergen, or Mount Chigo is northnortheast and northeast and by north from you 12 or 13 leagues, it sheweth thus, in one long hill, going downe flat at both ends, with another peece of land, much lower to the eastwards of it.


De Straite van Gibraltar
Barbaria
Hispania
Andaluzia
Pars
Pars
Pars
Barbaria
Tetuan
Larache
Axzila
Gibraltar
Malaga
Penon de Velez
De Custe van Hispangien vande Riviere van Sevilien tot Malaga ende De Custe van Barbarien van out Mamora tot Penon de Velez Nieulijcx Beschreven door Iacob Aertsz Colom
Les Costes Marines d'Espagne entre la Riviere de Sevilien et Malaga. et les Costes de Barbaryen depuis out Mamora jusques a Penon de Velez.



The fifth demonstration,

In which Are shewed the Seacoastes off Andalusia from Palos untill you are past the Straights by **Madril**, *and the coast off Barbarie lying over against it, and also the cape Spartell on the coast of Barbarie to the ould Mamora.*

For to saile into the River of S. Lucas.

FROM Saltees to the river of S. Lucas, the course is southeast and southe, and by east betwixt 8 and 9 leag.

If you will saile into the river of S. Lucas, then sayle alongst the red sand-hills, so long untill that you get the towne of S. Lucas in sight about eastsoutheast from you, there lieth a white cloyster to the eastwards of the town, against the high land, and there standeth a great tree upon the high land, bring the thre even to the northside or the cloister, so that you may allmost see through betwixt then but not over the Cloyster, keepe then so standing, and sayle in right with them, and so you shall not come to neer the rocks to take hurt of them, and you shall have upon the showldest at low water and neepe tydes, 3 fathom, and at high water 22 foot, or scarce 4 fathom, When the Castle of Chipiona and the Church beginne to come one in the other, then you come to the first rocks or should, when the Church and Castle are right one over the other, then they stand southsouthwest from you, then you are upon the shouldest of all, but when the Castle with the Church come againe one through the other, then you get againe deepe water, 3 fathom and a halfe, and 4 fathom at low water with a neepe tyde, sayle in alongst upon the foresaid markes of the cloyster and the tree, but take good heed that you bring not the tree over the Quire, at the south end of the cloyster, for you should then come very close to the rockes, rather bring the tree a little to the northwards of the cloyster, for you can not lightly take hurt of the red sand-hils, but you may borrow off them upon your lead in 3 and 4 fathom. There stande also a mill to the eastwards of the towne, take heed that you bring not that also over heround Cloyster that standeth a litle to the eastward beneath at the towne, but keep them a handspikes length asunder, and then you sayl in the best deep. But if the foresaid mill, and that round Cloyster come one in the other when you saile in, then you shall (without saile) come upon the rocks or showld. When you are within over the showldest, sayl then towards the strand of S. Lucas, untill that you see altogether open into the river, for to avoyd the riffe that shooteth of from the N.W. point of the river, saile on alongst by the shore, and anckor before the little Church with the crosses (which stands below in the Sand-hills) in 5, 6, or 10, or 12 fathom, so neere as you please. Men may also turn out at this same channell with in different ships or barcks, but they must take good heed, it is not there very broad.

For to saile in alongst by Sipiona.

There goeth in also a channell by the land of Sipionen or Chipiona, for to find it, you shall saile in within two Cables length neer by the foresaid land, untill that you be within the second showld, then you must edge somwhat of from the land, untill you come upon the foresaid marks of the Cloyster and the great tree, then you must run in alongst upon them, as is before taught. The river of S. Lucas is good for to know, by the Rooduyn, or red sand-hills which lieth to the westwards of it.

From Sipionen to Cales Males, the course S. E. 9 leagues. Cales is knowne by the mountaine of Granade, when that is eastnortheast and east and by north from you, saile then right in with it, and you shall not saile to fall right before Cales. At the point off Sipiano lye many rocks above water, and betwixt the point of Sipiona and Cales. Foure leagues from Sipiona lyeth Rotta, there shooteth of a great ledge of rocks from the point.

For to saile into the bay of Cales los Puercos.

He that will goe into the bay of Cales, let him run in right with the rockes which lye on the west-side of the Bay, being called los Puercos, and within two cables lengths in alongst by them in 6 or 7 fathom, untill he come before the town of Cales, and anckor there so deep as he pleaseth, in 8, 10, 12, or 15 fathom, the fareway lieth most eastsoutheast and southeast and by east.

Diamant.

There lieth a rock under water, called the Diamant, about N.N.E. and N. E. and by N. from the Puerco, a great halff league. When S. Catharins chappell upon the northland is E. N. E. from you, then are you thwart of that rocke, there is at halfe flood 3 fathom water upon it, the marks of this rock are these: When Mary Church cometh over the north end of Cales, (that is a Cloyster which standeth without Cales) there stands also a house upon the hill, where men goe alongst by, they goe to Sheres, when that house commeth over the chappel which standeth upon the water side, to the westwards off Marie port: when these markes come together one in the other then you showld saile upon the foresaid rock, there is upon the showldest of it a high water, 3 fathom and a halfe water upon it. But set the two high hills which are to the southwards off the way of Sheres, that they bee a little asunder, and that they doe not come one in the other, then you cannot saile upon this rock. The Puercos rock lie from the north point off Cales about halfe a league. He that lies before Cales in the road, hath Puntall south from him, or there abouts, according as he lieth neer to Calles. But the southwards off Cales lieth a rock, come not neerer that then in seven fathom.

Marcks of the Diamant.

The Bay of Cales is wide and broad, men lye there in 5 and 6 fathom, the northwest wind commeth there open in. If any man therefore would goe further in behind Puntall, let him goe in S. E. betwixt the point of Port Real and Puntal, and run up about the point of Puntall, there men lye land-lock for all windes: there men may lay thier ships dry a ground for to make clean. He that will goe into the Creke, must take a Pilot, and run up into the water of Port real leaving the little Iland on the larboard side, and then Herods Creeck shall upen it selfe, and there hee must saile up, keeping the middle of the channell, till the come before the Saltheaps.

To sayle from Cales to the Straite.

For to sail from Cales to the Strait, men must goe away S. and S. and by east to the Cape de Trafalgar, and then they shall run far enough without the banck or rocks which lye of southeast from Cales. From the point of S. Sebastian to C. de Trafalgar, which is the northpoint of de Strait on the west side it is S.S. east, 10 leagues. About two leagues to the northwards of the Cape, lieth Conil, there is a faire sand-bay, where men may anckor in 12, 13, and 14 fathom clean ground.

He that defireth to saile into the Straite of Gibraltar, comming from Cales, let him goe from the point of S. Sebastian, which is the westermost point of the Iland Cales, south

south and by east, and south southeast, towards the cape de Trafalgar, untill he be a good wayes without the land for to avoyd the Spanish coast which is fowle there lieth off west and by south from the iland Tariffe, a banck of stones 2 leagues, or two leagues and a halfe into sea, whereupon is eight, nine, or ten foote water, when it bloweth hard, men may see it break. The forefaid point of S. Sebastians, and the cape de Trafalgar lye ten leagues asunder. Riffe off Tariffe.

When you are then somewhat without the Cape de Trafalgar, and set your course south southeast, and southeast and by south, then you shall fall with the land off the Barbary coast, within the Cape de Spartell, about thwart off Tangar, lying in a great bight and sand-bay. Upon the west point off this Bay of Tanger, standeth a castle somewhat high, and yet somewhat higher upon the high land, standeth a little watch-tower: but to the eastwards off Tanger standeth also and old ruinous watch-tower, whereby Tanger is very good to be knowne. From Tanger to Ape-hill, the coast lieth most eastnortheast, and e. & by north, that is the right course for to fayle through the Strait. If you will sail into the Strait by night, then keepe to the Barbary coast, which is very cleane, and there you can take no hurt: but the Spanish coast is fowle, as is before sayd. They that will saile alongst by the Spanish coast, they must goe close alongst by the shore, and runne through betwixt the Iland Tariffe and the forefayd fowle grounds, close alongst by the iland, or els must keepe farre of from the iland, for to runne alongst without the fhowlds, but in the middest, neere a like unto both lands it is Best. Tanger.

Three leagues to the eastwards of the iland Tariffe lieth the point of Cabrita, being the west point of the great Bay of Gibraltar over against the hill of Gibraltar a little to the westwards of it, is a good road for a northeast wind, in 12, 10 and 8 fathom, not far from the shore, thwart of a great rock, which lieth close upon the water side, a little to the eastwards of the fire-tower: A little to the westwards of that firetower which standeth upon the forefaid point, is a fair sandstrand, betwixt the two towers there you shall lye smoot for the western grown sea. Cape de Brita.

At Gibralter is a faire Bay, almost like a haven: if you will anckor in the Bay of Gibralter, then faile so farre into it, untill that innermoft point of the hill of Gibralter, doe stand east from you, thereabouts it is deepe 5 or 6 fathom, and clean ground: towards the mill it is fhowlder water of 3 fathom. Men lie there in the bay landlockt for a w. wind, a s. winde commeth from the poynt of Gibraltar hill, but a s. w. wind that bloweth there open in. From thence are brought good wines.

When you will set fayle from the road of Gibralter with an easterly wind, it is good to beare up somewhat before the wind towards the west shore, and then forth out alongst by the lee shore, for the easterley winds do fall with such wirling and forefhore, for the easterley winds do fall with such wirling and fore-flaughes, from over the high land of Gibraltar, that you shal be hardly able to get out off the Bay alongst by the high land. When you com from the eastwards, and will faile out through the Statis, & that you are somwhat neere to the Spanish coast, then you must be very carefull, for that you bring the hill off Gibraltar, against the high land of Barbary, and in regard the land to the nordwards of Gibraltar hill is low, it seemeth (to look to) to be nothing els, then as if there were the opening off the Straites. It hath heretofore happened, that some which have so mistaken it, have sayled into the bay, thinking it to be the opening of the Strait, and so have lost their ships there. Therefore it is very need, that men take great care not to mistake themselves off the hill of Gibraltar, and if men do take heed off it, it is good for to know. Bay of Gibraltar.

Estepona lieth 5 leagues to the eastwards or to the northwards of Gibraltar, betwixt them both stand divers towres upon the coast, there is clean ground for to anckor. If you will anckor to the eastwards of Gibraltar, by the next tower of Gibraltar, then bring Gibraltar s.f.w. from you, and anckor in 25 fathom, there is cleane ground, and black sand, but if you will anckor by the second firetower, there is a falley, and there you may fetch water, and anckor in 20 or 22 fathom, there is a valley & there is also clean ground, and better lying for to set sail with easterly winds, for those that are bound out of the Strait before Estepona men may anckor in 14 fathom, that is a place for fore Estepona men may anckor in 14 fathom, that is a place for to lade fruite and wines 5 or 6 leagues to the eastwards off it to lade fruite and wines 5 or 6 leagues to the eastwards off it lieth Marveles, betwixt them both stand 3 watch towrs upon that coast.

From Gibralter to Marveles, the course is n. e. and by n. di- Marveles. stant 12 leagues, if you will anckor at Marveles, then you must look out for two Pack-houses with stand upon the strand and a great esquare watchtower close to the eastwards of the foresaid Pack-houses: bring the gate of the towne so, that you may see through betwixt the Pack-houses and the watchtower, and anckor there in nine or ten fathom. Right before Marveles the ground is not cleane. About a shot off a Cast peece to the westwards off the town, men may fetch fresh water.

From Marveles to Fangerola it is 5 leagues e. n. e. betwixt Fangerola them both stand also 5 watch-towers. Fangerola is a castle, and hath a faire sand-bay, there is good anckor ground in 7 or 8 fathom, a flat rising ground, men may lye there landlockt for a west southwest wind.

From Fangerola to C. de Mol, the west point of Mallaga, C. de Mol the course is forth n. e. two great leagues: but from the w. point of Mallaga to the town of Molling, the course is n. e. and n. e. Malaga. and by e. 4 leag. it is the betwixt them both a faire strand where men may anckor all alongst in 10 or 12 fathom.

Mallaga is knowne by these markes. There standeth a Castle to the eastwards upon the high land, and there come 2 walles downewards towards the sea to another Castle which lyeth by the water side. Before that same Castle is now the road, that which was wont to be the right road, is now altogether spoyled by casting off Ballast.

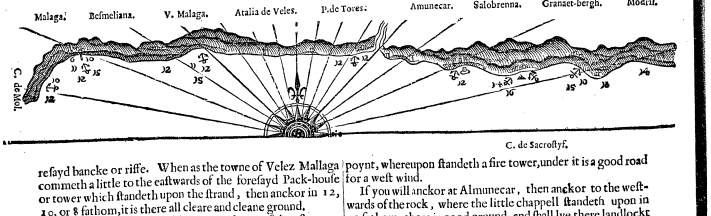
If you will anckor in the road before Mallaga, then anckor in 10, 11, 12, or 14, fathom, thwart of from the head, of that the head com to lye from you north and by east, there is very good ground, the anckors hold there well, also men lye there out off danger for the Mores.

Velez Mallaga lieth from Mallaga east and by north distant 7 leagues, betwixt them both men may anckor all alongst by the shore. About a league to the westwards off Velez Malaga stand eth a little Castle, before it is good Anckoring in 10 or 12 fathom. By the next Tower, to wit, the next to the little castle, there is fresh water to be gotten on the land. Marks of the roade Tetuan.

Te towne off Velez Malaga lyeth about a league within the Velez Mal- land, but upon the strand stand eth a great Packhouse which to laga. see to, is like a castle.

If you will anckor at Velez Mallaga coming from the westwards, then you must give the west point a birth, there lyeth off a bancke a good wayes into sea by the watch-tower which standeth below, to the westwards off Velez Mallaga: but if you run alongst by the shore in 10, or 11 fathom, without coming neerer the shore, then you can not take any hurt in the fo-

The coast of Spain from Malago to Modril.



refayd bancke or riffe. When as the towne of Velez Mallaga commeth a little to the eastwards of the forefayd Pack-houfe or tower which standeth upon the strand, then anckor in 12, 10, or 8 fathom, it is there all cleare and cleane ground.

From Velez Mallaga to Almunecar, the course is east, 15 or 16 leagues, betwixt them both it is all cleane Coast, men may anckor there under al the points which lye betwixt them both.

Two great leagues to the westwards of Almunecar lyet a poynt, whereupon standeth a fire tower, under it is a good road for a west wind.

If you will anckor at Almunecar, then anckor to the westwards of the rock, where the little chappell standeth upon 12 fathom, there is good ground, and shall lye there landlockt for an east and westnorthwest wind.

Salobrena lieth from Almunecar 4 leagues to the eastwards, that is a little Towne with a little Castle, and lieth upon a hill a little

little about the east point of Almunecar, and right before Salobrena lyeth a little Iland, he that will anckor there must anckor to the westwards of it, there he shal lie landlockt for a n.e. wind, & also for a w. wind, then the shal have succour of the e. point of Almunecar. Mē may also wel ankor to the eastwards of that little iland, but to the westwards of it is the best road, there lie also all the ships, they may anckor there in 14 & 15 fathom, clean soft ground, in 16 fathom they shall lye somewhat to farre out. Men may (if need so require) run through betwixt the forefaid little iland, and the maine land, betwixt them both there is about 16 or 17 foot water, & the litle iland is round about clean, so that men may run very close alongst by it without feare.

Two great leagues eastwards from Salobrena in the same bight, a half league from the sea side within the land lyeth Modrill, which hath 2 Churches and some trees, thereabouts upon the water side standeth a square tower.

If you will ankor at Modril, then anckor before the forefayd square towr, which standeth upon the water side in 12 or 13 fathom, so that you may see the litle tower upon the east point even without the other point, there is cleane ground, men lye there landlockt for an eastwind, but a south east and a south wind make theere (like as at all places on these coasts) a lee shore. A little to the eastwards of Modrill lyeth the point, called Cape de Sacrastijf.

The Coastes of Barbarij.

For to faile out of the Bay of Gibraltar to Tetuan, then run over south and by east, about close by the pointe of Seuta, especially with a westerly winde, you shoulde otherwise be carried away so with the current, which then commonly runs to the e. wards, that you should fal to farre to the Leewards, Comming then about by the point of Seuta, you shall see out a head of black point, called cape Porkes, lying south from the point of Seuta. When men lye in the Bay of Gibraltar, they may see Porques. the forefaid cape Porkes alongst over Seuta: which is a point very good to beknown, fayl towards that point, and with a west wind luffe up so neere as you can. When you come about that point, then you shall begin to se Tetuan, which lieth up against the high land, a great league within the land: run then so far to the southwards, untill that the east end of the towne come right over a litle round hommock, which is upon the high land within. In the middeft off the towne standeth a black tower, and in the innermoft land off al within, lye 3 little hills, which doe (as it were) looke over the outermoft inner land, bringh the 3 little hills over the forefayd black tower, & anckor then so farre from the shore, that the first little hill of the high land to the southwards of Seuta towards C. Porques, come a little without C. Porques, there it shall be 16 fathom deep, and good soft ground. If you anckor otherwise then upon these forefayd marks, you shal have bad, ftrony & sharpe ground. It hath happened that some ships have ankored there, buy their ankors fel so in to the rocks, that they could not weigh them again, but must hew of their cables, & leave their anckors behinde them. Therefore if you come of from the point of C. Porques, then be carefull that you bring the forefayd litle hommock (which lyeth a stearne off you in the bight off Seuta to the S. wards of Seuta) a little without the C. Porques, and so keep sailing to the southwards, & keep heaving of the lead continually without ceasing unt. Il that you get the soft ground, so soone as you shall feele it, let then prefently your ankor fal, for the place wher the soft ground is, is not 2 cables lengt in compasse great, C. Tetuan. Tetuan lieth from Seuta a bout 6 leagues, and 3 or 4 leagues to the southwards of it lyeth a point, called cape Tetuan, whereupon standeth a tower. He that hath never been at Tetuan, might easily be mistaken by that point, taking it to be cape de Porques, the sooner because that som say that Tetuan lyeth at least 9 leagues to the southwards of Seuta. It hath happened that ships have failed unto this poynt, and have so runne past Tetuan, therefore it is best that men goe not to farre from the shore either by night or by day for to get the Cape Porques certainly in sight.

The Bay off Tetuan betwixt tita cape Porques and C. Tetuan, is a fand-bay altogether of sand-strand with low hommocks here and there upon the sea-side, which a farre of seeme as if they where ships, but the ground thereabout is altogether foule, except such a place as before is say. Betwixt the Cape Porques and Seuta it is also a faire sandstrand, but thwart off it is all good ground.

The Coast of Barbarie in the Straite off Gibralter, lyeth from Seuta to Cape de Spartell west and by south, and west-southwest eight or nine leagues. But the cape de Spartell, and Cape de Trafalgar on the Spanish side, ly north and by west, and south and by east eight leagues asunder.

Arzyla. From Cape de Spartel tot Arzila, the coast lyeth south and by west seven leagues, betwixt them both alongst the sea side it is all lowe land, with some points and high within, with a white sand-hilly strand. A little to the southwards off the point of cape de Spartell, men may anckor for easterley windes in 12 or 13 fathom, cleane sand-ground, but so soone as the winde doth shift to the west they must bee ready to get under saile, lest they be inbaye upon a lee shore.

About a league to the foutwardes of the C. lyeth a litle hommock upon the low land, by the water side, which sheweth (in fayling by) like a broken schonce or castle.

Arzyla is a little walled town, lying upon the water side and hath a litle bard haven, which men doe fayle into at two places through a row of rockes, which lyeth before it, the northermoft channell is the deepeft, but both of them are not fit but for small shippes. Being come within the rocks men doe anckor betwixt the town and the rockes.

From Arzyla to Alarache, the coast lyeth also s. and by west 8 leagues, it is altogether a cleane coast with some roks on the shore, the land betwixt them both is somwhat higher then betwixt Arzyla & the C. with high land within. About an English mile to the southwardes of Arzyla standeth a tower, and somwhat further to the s. wards, upon the high land, stand some little houses, but men cannot wel see them, except they saile close alongst by the coast. Betwixt Arzyla and Alarache, but somwhat neerer Alarache then Arzyla, lieth on the sea side, a high white cliffe which is very good to be known, betwixt that cliffe & Alarache standeth upon the high land a very high tree, with some other trees by it, when men come from the n. wards alongst by the shore, that great tree seemeth to be a tower, yet somwhat to the s. wards standeth an other great tree, but not so great as the other: when men begin to come neere to Alarache, or els by the southermoft great tree, then the forefayd greateft tree doth hide it felfe behinde the land. These are all very good marks for to know this coast by, betwixt dese 2 places.

Alarache lieth with a great Castle upon the s. point of ari- Alaracha ver, which is very fhowld and crooked, the north point is a low point goying flat of, and within it, on the n. side of the river standeth also some buildings. Before the river lyeth a barre of quicksand, which lieth off from the north point, where this ships may goe in over with a spring tyde, through a Criek, els it is but for Barkes and Friggats: men may anckor before it in the Roade in 16, 17, and 18 fathom.

Alarache is under the command of the King of Spaine, and is little or nothing used either by English or Dutch-men.

He that faileth alongst this coast, must not come very close to the shore, unlesse it were with a hard Levand, or easterly winde, with calme weather there goet sometimes a very great grow sea out of the west or northwest, so that somtimes men can hardly get of from the shore.

From Alarache to Old Mamora the coast lieth s. and by w. and s.s.west betwixt 7 or 8 leagues, it is low land with sandhils with few places that are good to be knowen, all alongst even to Mamora.

He that cometh out of the sea, and falleth with the land here on this coast, shal perceive little knowledge of the land, unlesse hee shall with some of the inhabited places. This Old Mamora was wont also to be a haven, but is now altogether cast to off the sea.

Of the Tydes and Courses of the streames:

Before the Condaet on the coast a s.w. & n.n.e. moon maket high water.
Before Palos Moguer and Wolues maketh full sea a fouth and n. moon.
Before the river of S. Lucas and at Cales before the bay maketh full sea a s. w. and by fouth and northeast and by north moon.
At Cales in the bay maketh high water a s.s.w. moone.
The ebb falleth without the Puercos to the s. wardes towardes the Straet, and the flood towards the land to the northwards: but for the most part, the flooth falleth thwart in to the land, about the havens.
In the narrow of the Strait maket high water a s.w. and by south moon. The current runneth more to the wefwards then to the eaftwards; when it is faire weather there goeth commonly 4 houres flood to the eaftwards, and 8 houres ebb to the wefwards, but the moft part of the time according as the winde is, and at some time the current runneth so strong, that it rippleth as if there where shoulds.

Courses and Distances.

From Ayemont to Leep east and by north	7 leagues
From Leep to saltees or Palos, east and by south	7 leagues
From Saltees to the river of S. Lucas, or Sipiona s. e. and s. e. and by east 8 or 9 leagues.	
From S. Lucas or the poynt of Sipiona, to the poynt of Cales the course is southeast	9 leagues
From Cales to the poynt of the Strait southsoutheast	10 leagues
From Cales to the great Canaries southwest	140 leagues
From Cales to the Ile de Madera w. s.w.	200 leagues
From cape Trafalgar to Tariffe, the course is south east	4 leagues
From Tariffe to the point of Gibraltar east and by north	5 leagues
From the poynt of Gibraltar to Marmels n.e. and by n.	15 leagues
From Marveles to Fangerola e.n.e.	5 leagues
From Fangerola to the w. point of Mallaga e.n.e.	2 leagues
From the west point of Mallaga to the towne of Mallaga n. e. and n. e. and by north	4 leagues

The Sea coasts off Barbarie, lying over against.

From the point of Gibraltar to Malla n. e.	13 or 14 leagues	
From Mallaga to Veles malaga e. and e. and by n.	7 leagues	
From Veles mallaga to Almuncar east	15 or 16 leagues	
From Almuncar to Salobrena east	6 leagues	
From Salobrena to Modril east and by north	2 leagues	
From Modril to cape de Sacrafyfe. f. e.	1 leagues	
From cape de Sacrafyfe to Castel de Fierro e. and by n.	6 leagues	
From Castell de Fierro to Adera east	8 leagues	
From Adera to Almeria northeast	5 leagues	
From Almeria to cape de Gat f. e.	5 or 6 leagues	

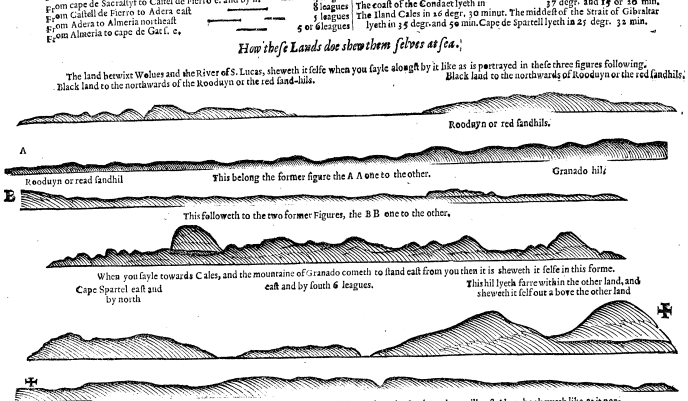
From the point of Gibraltar to cape de Gat e. and by n. — 66 leagues
From cape de Spartell in Barbary to the point of Apchill, the course is east north east — 8 leagues
From Apchil to the point of Seuta f. e. and by e. — 2 leagues
From the point of Seuta to the road of Tetuan f. — 5 or 6 leagues

Heights.

The coast of the Conduct lyeth in 37 degr. and 15 or 20 min.
The Iland Cales in 36 degr. 30 minut. The middest of the Strait of Gibraltar lyeth in 35 degr. and 50 min. Cape de Spartell lyeth in 25 degr. 32 min.

How these Lands doe shew them selves at sea.

The land berwixt Wolues and the River of S. Lucas, sheweth it selfe when you fayle alongst by it like as is portrayed in these three figures following.



The fifth demonstration,

In which Are shewed the coastes off Barbarie from old Mamor to C. de Geer, together with the Flemis Ilands.

Mamora. FROM Old Mamora to Mamora, the coast lieth alongst south and by west and southsouthwest 7 leagues. Before Mamora is a high broad sandstrand, and is not good to know, when you are somewhat off the land. The best knowledge thereof is this: When you come from the northwards alongst the shore, you have al high land within, that you come leese when you come before Mamora, and when you come from the northwards, you cannot see the river of Mamora open before you bee past it, by reason that it lieth in to the eastwards, and the n. point is low. When you come somewhat close by the shore, you shall see upon the high land in the castle of Mamora (which the Spaniards have built there for the defence of the place) a very high mast or stake, which you may see indifferent far off, and when it is cleare weather you may see also the high thick Tower of Sallee to the southwards stand against the land. Before the river lieth a Barre which with a Spring hath 16 and 17 foote, and sometimes more water, the Barre is oftentimes altred by the sea. In the spring it lieth in commonly 5 fc. & thereabouts. In the later part of the yeare it lieth in more easterly by the casting up of the sea out of the n. In the Summer the windes blow alongst the coast, the most part of the time out of the north, which causeth that the current runneth there to the foutwards, & in the winter they blow much and strong out of the f. w. and f. f. w. In the winter men must be very carefull to get of betimes when the winde beginneth to come to the south, or f. e. then it is time to get off for then commonly it shifteth to the s.w. and w. f. w. with foule weather, but when it commeth about againe to the westnorthwest, or northwest, then it is like to be good weather againe.

Road before Mamore. The road before Mamora is about a league from the land in 18 and 20 fathom, there is clean sandy-ground.

From Mamora to Salley, the coast lieth f. w. and by f. and f. f. w. six leagues, betwixt them both it low plaine land, and sandy-strand, with double land within, which is so even and smooth, as if it where planed over. From Mamora not halfe wayes to Sally, the strand ceaseth, and from thence forth to the southwards it is a shore all of black steepe ragged rockes with little hille, so that men cannot judge (when they are somwhat of the land) that is double land within, by the plaines off it. When you are a league or two past Mamora, then you may see very plaine the high thick Tower of Sally, and when you se the foresaid rocky shore you may be sure that you are past Mamora, that steepe rocky shore continueth from thence, until past Fedalle, yet betwixt Fedalle and Sally is here and there a place of white strand, betwixt the rockes, but to the northwards off Salley it is not so, but nothing else then perfect rocks.

Salley. The Towne of Salley hath a little Tower, and lieth upon the n. side of the river, which is a low plain point of land. The Castle hat also a little Tower, and lieth over against upon the S point of the River, which is a high rocky point. There goeth a wall round about the high thick Tower, and lieth upon a point on the s.side within the River. Before the River is a Barre which oftentimes with storms out of the sea doth alter and der hift, & is caft to, fometimes the channell runneth by one of the two points, and fometimes against right in the middeft off the rivers mouth. Hee that will anckor before Salley, let him bring the foresaid high thick tower (which standeth within on the River) on the point of the castle, to wit, over the south point of the River, which shall ten stand from him neere about southeast, and anckor there in thirty, eight and twenty, 24, 20, 18, or 16 fathom, so neere or farre of as hee will, there is clean black sandy-ground, nevertheleste that the shore thereabouts is so full of rocks and stones. Being come to anckor there men must shoot a shot to cause the Moores to come of. From Salley to the Iland Fedalle the shore lieth alongst S. W. and by f. about 9 or 10 leagues betwixt them both lye in the sand-strand, long black rocks (as before is said) so that off ten times men might take it to be Fedalle. The best markes for to know Fedalle by is a wood of trees about a league to the northwards off Fedalle, which standeth below upon the land and sheweth like a barne. When you come sayling alongst close by the land, you shall see it above upon the land, but when you are somewhat of from the land, then you shall se the land within, in above the wood of trees (or Barne as men doe commonly wers, and sheweth to tee of off at sea, in white spots against the land. When you are thwart off from it, you shall see to the southwards the high tower of Tyro (which is a town fallen down about 2 leagues to the westwards of Mafagam) almost like the tower of Anafee. A little to the westwards of mafagam, at the westpoint of the Bay, shooteth off a ledge or riffe of rocks, almoft a league off into sea, where of the rockes at high water, lie moft under water, and at low water are uncovered. He that will anckor there, and is not well acquainted, muft take in a Pilot, which may bring him to a place where is good anckor ground, for although that it be a great Bay, yet nevertheleffe there are few places where the ground is clear, but is at many places foule, fo that but few fhips fhould beable to lye there in clean ground, when you lie in the right road, then lieth the eaft point of the Bay eaft, and the weft point about n. w. from you. Tyro.

About a leagues to the weftwards of Tito, lieth a fteep point, when you come from the eaftwards alongft by the fhoare, you fhall fee no more land without the point, untill that you come near it, when you begin to get it upon your broad fide, then there cometh out to the weftwards a great fquare cliff, which is very good to be known, & is whitifh with reddish spots, and seemeth a ar off as it were a wall. This point is called after that white point, Cape Blanco, About 3 leagues tho the weftwards of this Cape Blanco, lieth a little tower upon the high land, neere by a valley called Cafa Cavalgera, and two leagues more to the weftwards lieth upon the high land another little houfe called Emindra, but you muft be clofe by the land before that you can fee it. From the forefaid C. Blanco tho the C. Cantin, the coaft lyeth w. f. w. and f. w. and by weft about 9 leagues.. C. Blanco; Casa Cavalgera. Emindra. C. Cantin.

Read under Fedalle. The C. Cantin is an even plaine point, when you are to the northwards of it, it fheweth flat to wards the weft, and going off towards the fea: there ftandeth a fire-tower upon it, but very fmall, that fometimes you can hardly fee it. If you come from the northwards, or from C. Vincent, and are bound to Safia, then fech your courfe f. and f. and by eaft, and then you fhall fall with the land 4 or 5 leagues to the eaftwards of Cape Cantin, or if you faile a more westerley courfe you fhall runne till you come in the height of 32 degrees and a half, and then the C. Cantin fhall lie due e. from you, it is better to fall a little to the eaftwards of the C. then to the weftwards of it; becaufe the winds blow there moft common northerly. If you fall to the eaftwards of the C. the coaft lieth there f. w. and by w. and w. f. w. and it is even plaine land. About 10 leagues to the eaftwards of the C. lieth that little town Tyro, with a high white tower upon the fea fide, and 5 or 6 leagues more to the weftwards (betwixt Casa Cavalgera and C. Cantin) your fhall fee a little bight or bay, thereabouts lie upon the ftrand by the water fide, great black rockes, which fhew as if they were wrakes of fhips, and then forth alongft to the C. it is a faire flat fandy ftrand from the C. fhooteth off a ledge of rocks fomewhat of into fea, which men muft avoid when then fayle about the Cape.

Depths & grounds about Fedalle. From C. Cantin tho the n. point of Safia, the coaft lieth for fomewhat more westerley. 5 or 6 leagues, betwixt them both it is a fteep rocky land without fandy ftrand, but above upon it plaine and even. A league to the fouthwards of the C. lieth a riffe or fhowld by the fhore, by fome called the Gold-bancke and lieth about a league off from the land: at fome times of the year there is much fifh to be taken.

Safia. Tho the fouthwards of the Bay of Safia is high aneven, and moft of all double land but to the fouthwards of it, it is even and plain, therby men may eafily perceive or difcern whether they be to the northwards of Safia, or to the fouthwards of it.

For to anckor in the Bay off Safia. If you will anckor in the bay or road before Safia, then bring the north point (whereupon ftandeth a tower) a little more westerley then n. from you, and anckor then in 18 fathom. Or if you will anckor further in the bay, then bring the foresaid n. point n.n. w. or a little more northerly from you, and then the northermoft of the two north points fhall bee a fhippes length without the fouthermoft or the next unto you, run then fo farre to the fouthwards untill that tower where men doe land with the boats (which is a high fquare tower, ftanding below even within the wal of the towne) come right over a tower which ift faft to the wall, which commeth of from the Caftle above to the fouthwards, fo that the foresaid thicke tower below come right over the Haven betwixt the poynt where the caftle ftandeth upon the water fide, and the rocks where men goe in betwixt. Or elfe anckor that the high Caftle of Safia ftand e. and by f. and e.f.e. from you, there it is fixteene, feventeene, & eightеene fathom deepe, good fine fandy ground. You may alfo anckor fo farre within in the Bay in 15 or 16 fathom, that the north poynt come to be n.w. & n.w. and by w. from

Monfor. monly name it for the likeniffe of it) alfo there lyeth a little rownd hommock about foure leagues tho the northwardes of Fedalle, which you fhall fee above the reft of the land, when you are fomewhat off from the land, but when you come close by the land, it hideth it felfe alfo behinde the double land. The coaft betwixt Salley and Fedalle, is very plain and fmooth double land, fo that there is not another fuch hommocke more betwixt them both, as that forefayd hommocke, and in regard the coaft therebouts is altogether fo plain, without any places good to beknowne, there fore men muft take the more fpeciall heed unto fuch fmall markes, for not to fayle paft the place were they are bound unto.

Betwixt the forefayd Barne or wood of trees and Fedalle ftandeth alfo a ruinons little Towne fallen downe, in a rough wood, called Monfer, when you fayle alongft clofe by it, you fhall fee yet fome peeces of walles of it.

Read under Fedalle. Tho the fouthwards of Fedalle the land is agayne higher, and where the high and low commeth together, it doth make a clift, there by the iland of Fedalle is good to be known. when that clift is f. f. e. from you, then is Fedalle thwart of it alfo f. f. e. from you. If you will goe into Fedalle, then runne right with the forefayd Barne, or wood of trees, untill you come within a league, or fomewhat neere to the land, and then alongft by it, and fo you fhall not miffe the iland Fedalle, but runne in betwixt it and the maine land, when that you come by the north poynt of Fedalle, then anckor betwixt the ftrand and the forefayd north point, but much neerer the iland Fedalle then the ftrand in fix, feven or eight fathom, fo that you come to lye with your fhippe fo farre in, that forefayd point of the iland doe lye n.n.w. from you, then lyeth the forefayd Barne e.n.e. from you, and Monfor a handfpikes length tho the northwards of the Barn or wood of trees, yon may alfo anckor in 12 fathom, fo that the poynt off Fedalle lye weft and by fouth from you.

This bight within the iland Fedalle, is a very bad place to lye in, for although you lye there fo that the poynt off the Iland lye northweft, and north and by weft from you, and with a cable on the iland, neverthelefte the grown fea cometh fo hard rowling in about the poynt of the iland (when the winde is westerly) that you might rather defire to lye in the open fea, then within the iland. From the north point of Fedalles fhooteth of a ledge or riffe off rockes a Musket fhot into fea, the moft of them lye high above water; within the iland it is very flat towards the ftrand, the Bay on the land is a faire fandy ftraud, there men may get ballaft from the fhore, but they muft bee very carefull to ftand upon their guard, for there are dangerous people.

Depths & grounds about Fedalle. Before Fedalle, to wit, to the northwards off it, thwart of the wood of trees, and alongft to Salley, it is allfhwold water a league or two from the land, all alongft that diftance, of it is not deeper then 23, 24, and 23 fathom cleane fand-ground, foule ground.

He that will trade at Fedalle muft anckor fomewhat farre in, for they have there no Boats, men muft fetch the Mores aboard with the Boat.

Anafee. Upon the n. point of Fedalle lieth a high hommock, which fheweth a far off when men come in, as if it were a caftle falne douwn, but it is nothing elfe then rocks. At the f. end of Fedalle men may goe over on foot at low water to the maine land, but at high water fea wafhet through at 2 places, it floweth there 7 and 8 foot up and down.

Three leagues f. w. and by f. and f. w. From Fedalle lieth an old ruinous town fallen downe clofe upon the ftrand called Anafee, it is a ling town with many towers, amongft the reft one high thick tower al moft like the tower of Salley, but men muft bee indifferent clofe by it before you can fee it. When you are thwart of Anafee, you may yet fee the wood of trees to the northwards of Fedalle, which ftandeth then to fee to from faras a fayle in the water, 2 leagues to the fouthwards, (or rather to the westwards) of Anfee, or Anafee, is a fteepe point with red cliffs, wich feem a far off as if they where houfes, fuch fpotters men fhall find at divers places on the coaft.

Azamor. From Anafee to Azamor the coaft lieth f. w. and by w. weftерly 18 leagues betwixt them both lieth another fallen place called Lyones. Azamor hath apoint lying out on the e. fide when you come fayling alongft the fhoare from the northwards, Azamor lieth then about or behinde that point upon the ftrand, but ftandeth high. A little paft Azamor lieth a river, and thereabouts are fome towers in the low-land.

Mafagam. Three little leagues to the weftwards of Azamor lieth the town of Mafagam, on a white ftrand clofe by the fea fide this town is inhabited by the Portugals, or Spaniards, it hat no to-

from you. These are the Summer road. In the Winter men must anckor further from the land in 28 or 30 fathom, there the ground is couse sand. Men may boldly run in before Safia into the road by night, there is nothing that they need to feare, which may doe them hurt, but the land.

About 2 leagues from Safia, lieth the f. point of the bay, which is a low point that lieth out, and two leagues to the southwards of it lieth another steep rocky point without sandy strand. By it goeth in the River Tansir up into the land unto Marrocos.

From the poynt of Safia to the Iland Mogodor, the coast lyeth f. f. w. 19 or 20 leagues.

Iland mogodor. Against the northeast end of the Iland Mogodor, there shooteth off from the maine land, a great row off rockes, being hardsharpe rockes, whereof the outtermost, or those that lye next to the Iland Mogodor, lye high above water: He that commeth from the northwards, and wil saile in behind the Iland Mogodor, must runne in betwixt the Iland and the foresaid rockes, close in alongst by the Rocks. It is there in comming in, betwixt the Iland and the Rockes five fathom deep. Within the foresaid rocks lye also some other Rockes on the larboard side, which at high water are under water, and at low water are encovered. When you come to the end off them, you may luffe up about by them towards the maine land, and anckor there within them in three fathom at low water, there is good sand-ground. But yet nevertheless if it is not there very good lying, for by reason off the breaking off the Sea upon the foresayd rocks, there goeth sometimes a great Sea, so that it is not good lying there with at ftorme, but further in, under the Iland it is good lying in two fathom and a halfe. From the south end of the Iland lyeth off a little riffe towards the maine land allmost tho the foot ftrandt, and to the southwards off the forefayd little riffe, lyeth a bancke off from the maine land allmost a league of into sea. If you will sayle out at the south end, then run alongst by the shoare of the maine land, untill that you bee about the foresayd riffe, and run out then upon your lead alongst by the banck, and then you shall presently yet deeper water, of 4, 6, 8, and 10 fathom, and then you may saile there, where you desire to be.

C. de Geer. From the point of Safia to C. de Geer, the course is southsouthwelt about 43 leagues but from Mogodor the same course about 22 or 23 leagues. It is there betwixt them bot a faire flat sand-ftrand, with double land, which a some places is very high.

C. de Taffalana. About eight leagues to the northwards of C. de Geer lyeth a point called C. de Taffalana, under which men may ride in good sand-ground for east and northeast windes. The C. de Geer is lower then the land to the northwards of it, and falleth to the southwards flat of into sea, which men shall firft perceive when they come within 3 or 4 leagues of it. About 4 leagues to the northwards of the Cape lyeth a high Hommocke within tho land, and further northwards the Land is yet higher; but when you come thus from the northwards near C. de Geer, you shall see no more land to the southwards of it. When you come to the point you must give the riffe a birth that lieth of from it, and runne about by it; and then forth southeaft and by east, and southeft, 7 or 8 leagues to S. Cruz, and then you shall see the Moores Caftle ftand on the high land: thwart of it lie a row of Rockes, about a Calliver shot in length, esse it is all a cleane and cleare coast. For to anckor there in the Bay, runne so farre into the Bay, that the foresaid Mores Caftle ftand north from you, and the Chriftians packhouses northeaft, theere it shall be deepe (to the southwards or the foresaid row of Rocks) 7 and 8 fathom, the north point or Cape de Geer, shal then be from you northweft and by weft, there is the beft road. In the Summer time you may ankor nearer to the shoare, untill you come in 6 and 7 fathom. When you saile from Cape de Geer towards the playe or the Road, you muft be carefull to keepe clooſe aboord of the land of the Cape, and run alongst by it, untill you come before the Caftle. If you runne farre of from the shoare, you shall with northerley windes (which blow there much) be conftrained to come in northeaft, and northnorthealt, again for to recover the shoare, therefore it is beft to keep clofe aboard the high land. He that should come into the road here by night, muft not (upon certain great forfeiture) come nearer the shoare then in 12 or 14 fathom.

Riffe of cape de Geer.

Road before S. Cruz.

In this Road muft be very carefull and ready with their anckors, the smalleft bower muft be alwayes laid out for the wind which bloweth of the land, and the other anckors to Seawards. The ſhoot anckor muft bee alwayes ready against a ſtorme (which men may very well perceive before by the ſwelling or riſing of the ſea) to bring it out in the ſouthweſt. Alſo it is needfull to keepe the foreſaid to the yard, for to helpe themſelves with it the beſt that they can if it ſhould happen ſhould be forced from their anckors.

In this Bay is much fiſh to be taken, when men lye there in the road, they take their turnes to go out to fiſh.

From the C. S. Vincent South-Weſt and by Weſt 140 leagues, and from the cape de Finiſterre ſouthſouthweſt and ſouthweſt and by ſouth 232 leagues, lyeth the Iland Porto Santo lying ſoutheaſt and northweſt upon each end of this iland lieth a great rock. The road is on the ſouthweſt ſide, to the eaſtwards of the ragged rock, before a little haven where men may landlocks with boats.

Porto Santo.

The iland Madera lieth from Porto Santo ſ. w. 16 leagues ſouthwards from the eaſt point of Madera, lie 3 ſmall rocky ilands, being called the Serters, the northermoſt is the ſmaleſt, and lieth about a league from the land from the foreſaid point, the ſouthermoſt is the greateſt, and lyeth foure leagues from the land. Hee that commeth from the northwards, or from Porto Santo, may saile through betwixt them and the point of Madera, it is there betwixt them broad and wide, and alſo cleane and cleare every where, onely at the foreſaid eaſt point of Madera lieth a ſuncken rock, whereof men muſt take heed.

Madera.

Serters.

At the ſouth ſide of the iland before the towne S. Cruz is a good road in 20 fathom, but before Fonſiall is the chiefeſt Road for to lade: to the weſtwards of the Towne lieth a great rock with a croſſe, called the Lion, by is the beſt lying in 30 or 40 fathom.

S. Cruz.

At the ſouthweſt ſide before Maraſilo is alſo good ankoring in ſixteene or eighteen fathom. In all theſe foreſaid places is good ground for to anckor in.

Betwixt Madera and Teneriffe lieth the little iland Salvages, to wit, ſouth from the Serters forty leagues. North from the northeaſt poynt of Teneriffe ſeven and twenty leagues, and northnorthweſt from the northeaſt point of great Canaries, forty, or two and forty leagues, it lyeth ſouthweſt and northeaſt and is about a halfe league long. The ſouthweſt end of Salvages is foule farre of into ſea, therefore runne rather about to the eaſtwards of it then to the weſtwards. Three or 4 leagues ſouthweſt from that point, amongſt other Rockes, lyeth one great rock which ſheweth a ſor of like a ſaile. Under the ſoutheaſt ſide of the Salvages is a good road for a northweſt and weſt wind.

Salvages.

Madera and the iland S. Michaels lye northweſt and ſoutheaſt 135 leagues diſtant. At S. Michaels, the road is at the ſouthweſt ſide of the iland, when you come about one off the two points, either from the eaſt or weſt, then you ſhall ſee two little towns. Before the weſtermoſt, called Punte de Gada, or Punt Alagato, is the Road in 20 and 25 fathom.

S. Michaels.

Punte de Gado.

Before the eaſtermoſt little towne lyeth a little iland, betwixt that and the land of S. Michaels it is 5, 6, and 7 fathom deep. Betwixt theſe two little townes, the coaſt lyeth weſtnorthweſt and eaſtſoutheaſt.

From S. Michaels to Tercera, the courſe is northweſt and by weſt foure and thirty leagues. Under Tercera the road is on the ſouth ſide of the iland, to the weſtwards of the rockes, right before the towne Angra, betwixt two points that lye out, upon each of them ſtandetha Caſtle for defence of the ſhippes which lye there in the Road, the weſtermoſt of the 2 points lyeth a good wayes further out to ſeawards then the eaſtermoſt, and hath upon the end of it, two very high, called Braſil, when you come out of the ſea, either from the eaſt wards or the weſtwards, it ſeemeth a farre of as if it were aſunder from the land. Theſe two forefayd hils upon the poynt of Braſil, are ſo high, that in cleare weather men may ſee from thence 16 or 17 leagues farre of into ſea. Upon it ſtand two pillars, which men may ſee every where in the towne Angra, and a watchman thereby for to keepe watch, and to give them of the towne warning of the ſhippes that come about the Iland. As many ſhips as hee ſeeth come from the weſtwards or the ſouthwards, that is, from the Weſt-Indies, Braſil, or the Portingals Indies, ſo many Flags he fetteth up upon the Pillar towards the weſt, when he ſeeth more then five ſhips, then he ſeeteth up a great Flagge, which ſignifieth a whole Fleet. Likewiſe he doth the ſame upon the other Pillar towards the eaſt, for the ſhippes which he ſeeth come from the eaſt, from Portingall or from the northwards, ſo that there cannot a ſhippe come thereabout, but men may ſee it preſently by that token in every corner & ſtreet of the towne.

Tercera.

For to ſaile into the road of Tercera.

He that cometh from the eaſtwards, or the northwards, and is bound into the Road off Tercera, let him run faire by the land of the eaſt point, and alongſt by it unto the 2 little Iſlands, called the Ilheos, which lye a little to the eaſtwards off the

the road, about a bow ſhot one from the other. Men may run alongſt to the ſouthwards off theſe Ilands, or to the northwards of them, as they will, and alſo betwixt them both. Betwixt theſe little Ilands and the maine land of Tercera, it is a great cannon ſhot broad, and 15 and 16 fathom deepe, thorow betwixt the little Iland it is five and 6 fathom deepe cleane ſand-ground. Somewhat the ſeawards of theſe little Ilands, lie 3 or 4 rocks above water, called Los Frayles. Being paſt theſe foreſaid little Ilands, you muſt ſaile to the weſtwards, until that you come neare to the foreſaid point of Braſill, a little to the eaſtwards of it you muſt anckor before the town of Angra in 20 or 12 fathom, or elſe men lay their ſea-anckor commonly in 16, and their ſmaller anckor towards the land in 8 or 9 fathom. Men lye there landlockt for a ſouthweſt and northeaſt and alſo for an E. N. E. winde, but a S. E. winde bloweth there flat open in. On the weſtſide of the point of Brazill is alſo a great ſandy Bay for to anckor in. Before a village, called S. Martin.

Los Frayles.

Three leagues to the eaſtwards of the Towne Angra, lieth a bight, called Porto Judeo, there the Spanniards landed with their forces, when they tooke in the Iland from the Portingals.

Hee that will ſayle from Tercera to Fayall let him ſet his courſe W. S. W. to the E. point of S. Georges, which is from thence ten leagues aſunder, Further betwixt the Pico & S. Georges through to Fayal are 16 leagues it lieth moſt W. N. W. through betwixt them and the Iland Fayall lieth to the weſtwards of the Iland of the Pico a great league aſunder of from it.

He that will anckor in the Road of Fayall, let him anckor right before the village of Fayall in 14 or 15 fathom, there is ſandground, but there goeth a hard tide of flood and ebbe.

On the ſ. w. end of the Iland Fayall lieth a little haven, for to ſayle in there, you muſt run in by the S. W. point, ſo long about by the ſhore, untill that you ſee the haven open, ſaile alongſt about by the S. weſt point untill that you come in the narrow, betwixt the rocks which lie of from the Weſt ſide, ſo ſoone as you come within the rockes, let preſently your anckor fal in 7 fathom, and bring Hawſers on the eaſtſide on land, faſt to the pales, which are there made for the purpoſe: the haven is little ſo that men may lie in it with no more then with 4 or 5 ſhips. Further in it is ſhould water.

Off the Tydes and Courſes of the ſtreames.

On the foreſaid coaſts maketh high water a. S. S. W. and S. W. and by S. moon

Courſes and Diſtances.

From cape Spartel to cape Cantin it is Southweſt ſoutherly,	65 leagues
From cape Spartel to Madera w. and by ſouth and weſt ſ. w.	209 leagues
From cape Cantin to Madera weſt	133 leagues
From cape Cantin to S. Vincent N, ſomewhat weſterly	90 leagues
From cape Cantin to Teneriffe S. weſt and by weſt	102 leagues
From cape Cantin to cape de Geer ſouthſouthweſt	50 or 52 leagues
From cape de Geer to cape de Non ſouth ſ. w. and ſ. by w.	27 leagues
From cape de Geer to the point of S. Cruz ſoutheaſt	5 leagues
From cape de Non to Oſſin ſouth	81 leagues
From cape de Non to cape de Bajador S. W. and by weſt	69 leagues
From cape de Geer to cape de Bajador ſ. w. ſomewhat weſterly,	93 leagues
From Safia to Madera eaſt and weſt	130 leagues
From cape de Geer to Madera weſt northweſt	133 leagues
From S. Michels to Tercera northweſt and by weſt	84 leagues
From Tercera to the eaſt end of S. Georges w. ſ. w.	20 leagues
From the eaſt end of S. Georges to Fayal w. n. w.	16 leagues
From Saint Michaels to de cape de Finiſterre o. n. e.	247 leagues
From Tercera to Roxent, or the River of Lisbon eaſt as leaſt,	267 leagues
From Tercera to cape de Finiſterre e. n. e. and eaſt and by north	284 leagues
From Tercera to the Lizart northeaſt and by eaſt,	287 leagues

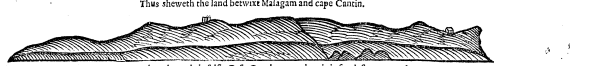
Heights.

Maſagam lyeth in	32 deg. 46. min.
C. de Cantin lieth in 32 degr. 32 min. the Iland Mogodor in 31 degr. 8 min.	
C. de Geer in 30 degr. C. de Non in 28 degr, 32 m. C. de Bajador in 27 degr.	

How theſe Lands doe ſhew them ſelves at Sea.

Caſa Cavalgero.

Thus ſheweth the land betwixt Maſagam and cape Cantin.

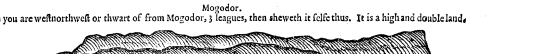


Thus ſheweth it felfe Caſa Cavalgero, when it is ſouth from you 6 leagues.

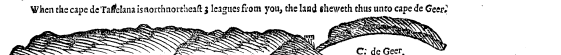
When cape Cantin is northeaſt and by eaſt 6 leagues, and the point of Safia eaſtſoutheaſt 4 leagues from you, then they ſhew themſelfes thus.

Thus ſheweth the land to the ſoutkwards of the ſouth point of the bay of Safia, when it is eaſtſoutheaſt 3 leagues from you

Mogodor.
When you are weſtnorthweſt or thwart of from Mogodor, 3 leagues, then ſheweth it felfe thus. It is a high and double land.

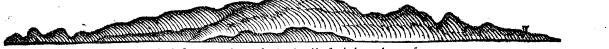


C. Taffelana.
When the cape de Taffelana is northnortheaſt 3 leagues from you, the land ſheweth thus unto cape de Geer.



C. de Geer.
When cape de Geer is northnorthweſt 3 leagues from you, it ſheweth thus and then the bay is eaſt and by ſouth from you, the land is with ſand-hils.

Thus ſheweth the Iland S. Michaels on the north ſide.



Thus ſheweth the Iland of Tercera, when it lyeth eaſt and by ſouth about 7 leagues from you,

When Tercera is 4 or 5 leagues from you, then it ariſeth thus, the weſt end of this Iland Tercera is higher then the eaſt end, thereby it is indifferent good to be knowne,

from you. Thefe are the Summer road. In the Winter men muft anckor further from the land in 28 or 30 fathom, there the ground is couſe fand. Men may boldly run in before Safia into the road by night, there is nothing that they need to feare, which may doe them hurt, but the land.

About 2 leagues from Safia, lieth the ſ. point of the bay, which is a low point that lieth out, and two leagues to the ſouthwards of it lieth another ſteep rocky point without ſandy ſtrand. By it goeth in the River Tanſit up into the land unto Marrocos.

From the poynt of Safia to the Iland Mogodor, the coaſt lyeth ſ. ſ. w. 19 or 20 leagues.

Iland mogodor. Againſt the northeaſt end of the Iland Mogodor, there ſhooteth off from the maine land, a great row off rockes, being hardharpe rockes, whereof the outtermoſt, or thoſe that lye next to the Iland Mogodor, lye high above water. He that commeth from the northwards, and will faile in behind the Iland Mogodor, muſt runne in betwixt the Iland and the foreſaid rockes, cloſe in alongſt by the Rocks. It is there in comming in, betwixt the Iland and the Rockes five fathom deep. Within the foreſaid rocks lye alſo ſome other Rockes on the larboard ſide, which at high water are under water, and at low water are encovered. When you come to the end off them, you may luffe up about by them towards the maine land, and anckor there within them in three fathom at low water, there is good ſand-ground. But yet neverthleſſe it is not there very good lying, for by reaſon off the breaking off the Sea upon the foreſayd rockes, there goeth ſometimes a great Sea, ſo that it is not good lying there with at ſtorme. but further in, under the Iland it is good lying in two fathom and a halfe. From the ſouth end of the Iland lyeth off a little riffe towards the maine land allmoſt tho the foot ſtrandt, and to the ſouthwards off the foreſayd little riffe, lyeth a bancke off from the maine land allmoſt a league of into ſea. If you will ſayle out at the ſouth end, then run alongſt by the ſhoare of the maine land, untill that you bee about the foreſayd riffe, and run out then upon your lead alongſt by the banck, and then you ſhall preſently get deeper water, of 4, 6, 8, and 10 fathom, and then you may ſaile there, where you deſire to be.

C. de Geer. From the point of Safia to C. de Geer, the courſe is ſouth-ſouthweſt about 43 leagues but from Mogodor the ſame courſe about 22 or 23 leagues. It is there betwixt them bot a faire flat ſand-ſtrand, with double land, which a ſome places is very high.

C. de Taffalana. About eight leagues to the northwards of C. de Geer lyeth a point called C. de Taffalana, under which men may ride in good ſand-ground for eaſt and northeaſt windes. The C. de Geer is lower then the land to the northwards of it, and falleth to the ſouthwards flat of into ſea, which men ſhall firſt perceive when they come within 3 or 4 leagues of it. About 4 leagues to the northwards of the Cape lyeth a high Hommocke within tho land, and further northwards the Land is yet higher; but when you come thus from the northwards near C. de Geer, you ſhall ſee no more land to the ſouthwards of it. When you come to the point you muſt give the riffe a birth that lieth of from it, and runne about by it; and then forth ſouthweaſt and by eaſt, and ſouthelt, 7 or 8 leagues to S. Cruz, and then you ſhall ſee the Moores Caſtle ſtand on the high land: thwart of it lie a row of Rockes, about a Calliver ſhot in length, elſe it is all a cleane and cleare coaſt. For to anckor there in the Bay, runne ſo farre into the Bay, that the foreſaid Moores Caſtle ſtand north from you, and the Chriſtians packhouſes northeaſt, theere it ſhall be deepe (to the ſouthwards or the foreſaid row of Rocks) 7 and 8 fathom, the north point or Cape de Geer, ſhal then be from you northweſt and by weſt, there is the beſt road. In the Summer time you may ankor neerer to the ſhoare, untill you come in 6 and 7 fathom. When you faile from Cape de Geer towards the playe or the Road, you muſt be carefull to keepe cloſe aboord of the land of the Cape, and run alongſt by it, untill you come before the Caſtle. If you runne farre of from the ſhoare, you ſhall with northerley windes (which blow there much) be conſtrained to come in northeaſt, and northnortheaſt, again for to recover the ſhoare, therefore it is beſt to keep cloſe aboard the high land. He that ſhould come into the road here by night, muſt not (upon certain great forfeiture) come nearer the ſhoare then in 12 or 14 fathom.

Riffe of cape de Geer.

Road before S. Cruz.

In this Road muſt be very carefull and ready with their anckors, the ſmalleſt bower muſt be alwayes laid out for the wind which bloweth of the land, and the other anckors to Seawards. The ſhoot anckor muſt bee alwayes ready againſt a ſtorme (which men may very well perceive before by the ſwelling or riſing of the ſea) to bring it out in the ſouthweſt. Alſo it is needfull to keepe the foreſaid to the yard, for to helpe themſelves with it the beſt that they can if it ſhould happen ſhould be forced from their anckors.

In this Bay is much fiſh to be taken, when men lye there in the road, they take their turnes, to go out to fiſh.

From the C. S. Vincent South-Weſt and by Weſt 140 leagues, and from the cape de Finiſterre ſouthſouthweſt and ſouthweſt and by ſouth 232 leagues, lyeth the Iland Porto Santo lying ſoutheaſt and northweſt upon each end of this Iland lieth a great rock. The road is on the ſouthweſt ſide, to the eaſtwards of the ragged rock, before a little haven where men may landlocks with boats.

Porto ſanto.

The Iland Madera lieth from Porto Santo ſ. w. 16 leagues ſouthwards from the eaſt point of Madera, lie ſmall rocky ilands, being called the Serters, the northermoſt is the ſmalleſt, and lieth about a league from the land from the foreſaid point, the ſouthermoſt is the greateſt, and lyeth foure leagues from the land. Hee that commeth from the northwards, or from Porto Santo, may faile through betwixt them and the point of Madera, it is there betwixt them broad and wide, and alſo cleane and cleare every where, onely at the foreſaid eaſt point of Madera lieth a ſuncken rock, whereof men muſt take heed.

Ser.

At the ſouth ſide of the iland before the towne S. Cruz is a good road in 20 fathom, but before Fonſiall is the chiefeſt Road for to lade: to the weſtwards of the Towne lieth a great rock with a croſſe, called the Lion, by is the beſt lying in 30 or 40 fathom.

S. Cruz

At the ſouthweſt ſide before Marafilo is alſo good ankoring in ſixteene or eighteen fathom. In all theſe foreſaid places is good ground for to anckor in.

Betwixt Madera and Teneriffe lieth the little iland Salvages, to wit, ſouth from the Serters forty leagues. North from the northeaſt point of Teneriffe ſeven and twenty leagues, and northnorthweſt from the northeaſt point of great Canaries, forty, or two and forty leagues, it lyeth ſouthweſt and northeaſt and is about a halfe league long. The ſouthweſt end of Salvages is foule farre of into ſea, therefore runne rather about to the eaſtwards of it then to the weſtwards. Three or 4 leagues ſouthweſt from that point, amongſt other Rockes, lyeth one great rock which ſheweth a for of like a faile. Under the ſoutheaſt ſide of the Salvages is a good road for a northweſt and weſt wind.

Salvages.

Madera and the iland S. Michaels lye northweſt and ſoutheaſt 135 leagues diſtant. At S. Michaels, the road is at the ſouthweſt ſide of the iland, when you come about one off the two points, either from the eaſt or weſt, then you ſhall ſee two little towns. Before the weſtermoſt, called Punte de Gada, or Punt Alagato, is the Road in 20 and 25 fathom.

S. michels

punte de Gada.

Before the eaſtermoſt little towne lyeth a little iland, betwixt that and the land of S. Michaels it is 5, 6, and 7 fathom deep. Betwixt theſe two little townes, the coaſt lyeth weſt-northweſt and eaſtſoutheaſt.

From S. Michaels to Tercera, the courſe is northweſt and by weſt foure and thirty leagues. Under Tercera the road is on the ſouth ſide of the iland, to the weſtwards of the rockes, right before the towne Angra, betwixt two points that lye out, upon each of them ſtandeth a Caſtle for defence of the ſhippes which lye there in the Road, the weſtermoſt of the 2 points lyeth a good wayes further out to ſeawards then the eaſtermoſt, and hath upon the end of it, two very high, called Braſil, when you come out of the ſea, either from the eaſt wards or the weſtwards, it ſeemeth a farre of as if it were afunder from the land. Theſe two foreſayd hils upon the poynt of Braſil, are ſo high, that in cleare weather men may ſee from thence 16 or 17 leagues farre of into ſea. Upon it ſtand two pillars, which men may ſee every where in the towne Angra, and a watchman thereby for to keepe watch, and to give them of the towne warning of the ſhippes that come about the Iland. As many ſhips as hee ſeeth come from the weſtwards or the ſouthwards, that is, from the Weſt-Indies, Braſil, or the Portingals Indies, ſo many flags he fetteth up upon the Pillar towards the weſt, when he ſeeth more then five ſhips, then he ſeeteth up a great Flagge, which ſignifieth a whole Fleet. Likewiſe he doth the ſame upon the other Pillar towards the eaſt, for the ſhippes which he ſeeth come from the eaſt, from Portingall or from the northwards, ſo that there cannot a ſhippe come there about, but men may ſee it prefently by that token in every corner & ſtreet of the towne.

Terceira.

For to ſaile into the road of Terceira.

He that cometh from the eaſtwards, or the northwards, and is bound into the Road off Tercera, let him run faire by the land of the eaſt point, and alongſt by it unto the 2 little Islands, called the Ilheos, which lye a little to the eaſtwards off the

the road, about a bow ſhot one from the other. Men may run alongſt to the ſouthwards off theſe Ilands, or to the northwards of them, as they will, and alſo betwixt them both. Betwixt theſe little Ilands and the maine land of Tercera, it is a great cannon ſhot broad, and 15 and 16 fathom deepe, thorow betwixt the little Iland it is five and 6 fathom deepe cleane ſand-ground. Somewhat the ſeawards of theſe little Ilands, lie 3 or 4 rocks above water, called Los Frayles. Being paſt theſe foreſaid little Ilands, you muſt faile to the weſtwards, until that you come neare to the foreſaid point of Braſil, a little to the eaſtwards of it you muſt anckor before the town of Angra in 10 or 12 fathom, or elſe men lay their ſea-anckor commonly in 16, and their ſmaller anckor towards the land in 8 or 9 fathom. Men lye there landlockt for a ſouthweſt and northeaſt and alſo for an E. N. E. winde, but a S. E. winde bloweth there flat open in. On the weſtſide of the point of Brazill is alſo a great ſandy Bay for to anckor in. Before a village, called S. Martin.

Los Frayles.

Three leagues to the eaſtwards of the Towne Angra, lieth a bight, called Porto Judeo, there the Spanniards landed with their forces, when they tooke in the Iland from the Portingals.

Hee that will ſayle from Tercera to Fayall let him ſet his courſe W. S. W. to the E. point of S. Georges, which is from thence ten leagues aſunder, Further betwixt the Pico & S. Georges through to Fayal are 16 leagues it lieth moſt W. N. W. through betwixt them and the Iland Fayall lieth to the weſtwards of the Iland of the Pico a great league aſunder of from it.

He that will anckor in the Road of Fayall, let him anckor right before the village of Fayall in 14 or 15 fathom, there is ſandground; but there goeth a hard tide of flood and ebbe.

On the ſ. w. end of the Iland Fayall lieth a little haven; for to ſayle in there, you muſt run in by the S. W. point, ſo long about by the ſhore, untill that you ſee the haven open, ſaile alongſt about by the S. weſt point untill that you come in the narrow, betwixt the rocks which lie of from the Weſt ſide, ſo ſoone as you come within the rockes, let preſently your anckor fal in 7 fathom, and bring Hawſers on the caſtſide on land, faſt to the pales, which are there made for the purpoſe: the haven is little ſo that men may lie in it with no more then with 4 or 5 ſhips. Further in it is ſhould water.

Off the Tydes and Courſes of the ſtreames.

On the foreſaid coaſts maketh high water a. S. S. W. and S. W. and by S. moon

Courſes and Diſtances.

From cape Spartel to cape Cantin it is Southweſt ſoutherly.	65 leagues
From cape Spartell to Madera w. and by ſouth and weſt ſ. w.	200 leagues
From cape Cantin to Madera weſt —— ——	133 leagues
From cape Cantin to S. Vincent N. ſomewhat weſterly ——	90 leagues
From cape Cantin to Teneriffe S. weſt and by weſt ——	112 leagues
From cape Cantin to cape de Geer ſouthſouthweſt ——	50 or 52 leagues
From cape de Geer to cape de Non ſouth ſ. w. and ſby w.	27 leagues
From cape de Geer to the point of S. Cruz ſoutheaſt ——	5 leagues
From cape de Non to Oſſin ſouth —— ——	83 leagues
From cape de Non to cape de Bajador S. W. and by weſt	69 leagues
From cape de Geer to cape de Bajador ſ. w. ſomewhat weſterly,	93 leagues
From Safia to Madera eaſt and weſt —— ——	130 leagues
From cape de Geer to Madera weſt northweſt ——	133 leagues
From S. Michiels to Tercera northweſt and by weſt ——	74 leagues
From Tercera to the eaſt end of S. Georges w. ſ. w. ——	10 leagues
From the eaſt end of S. Georges to Fayal w. n. w. ——	16 leagues
From Saint Michaels to de cape de Finiſterre e. n. e. ——	247 leagues
From Tercera to Roxent, or the River of Lisbon eaſt at leaſt,	267 leagues
From Tercera to cape de Finiſterre e. n. e. and eaſt and by north	256 leagues
From Tercera to the Lizart northeaſt and by eaſt. ——	287 leagues

Heights.

Maſagam lyeth in —— ——	32 degr. 46. min.
C. de Cantin lieth in 32 degr. 32 min. the Iland Mogodor in 31 degr. 8 min.	
C. de Geer in 30 degr. C. de Non in 28 degr, 32 m. C. de Bajador in 27 degr.	

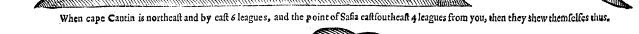
How theſe Lands doe ſhew them ſelves at Sea.

Caſa Cavalgero.

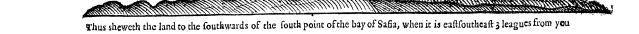
Thus ſheweth the land betwixt Maſagam and cape Cantin.

Thus ſheweth it ſelfe Caſa Cavalgero, when it is ſouth from you 6 leagues.

When cape Cantin is northeaſt and by eaſt 6 leagues, and the point of Safia eaſtſoutheaſt 4 leagues from you, then they ſhew themſelves thus.

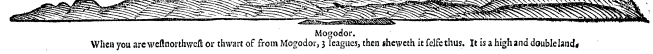


Thus ſheweth the land to the ſouthwards of the ſouth point of the bay of Safia, when it is eaſtſoutheaſt 3 leagues from you



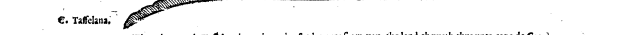
Mogodor.

When you are weſtnorthweſt or thwart of from Mogodor, 3 leagues, then ſheweth it ſelfe thus. It is a high and double land.



C. Taffelana.

When the cape de Taffelana is northnortheaſt 3 leagues from you, the land ſheweth thus unto cape de Geer.



C. de Geer.

When cape de Geer is northnortheaſt 3 leagues from you, it ſheweth thus and then the bay is eaſt and by ſouth from you, the land is with ſand-hils.

Thus ſheweth the Iland S. Michaels on the north ſide.

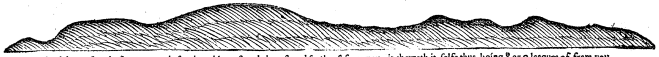
Thus ſheweth the Iland of Tercera, when it lyeth eaſt and by ſouth about 7 leagues from you,

When Tercera is 4 or 5 leagues from you, then it ariſeth thus, the weſt end of this Iland Tercera is higher then the eaſt end, thereby it is indifferent good to be knowne,

Thus sheweth Tercera on the north side.

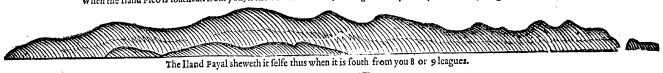
Bresil Road before Angra. Little Ilands.
Thus sheweth Tercera on the south side when you sayle alongst by it.

Thus sheweth the Iland S. Georges when it lyeth southsouthwest 7 leagues.

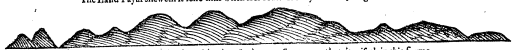


When the west end of S. Georges is south and by east and the east end southeast from you, it sheweth it selfe thus, being 8 or 9 leagues off from you.

When the Iland Pico is southeast from you, it sheweth it selfe thus, the high Pieck you may see about 40 leagues off from it at sea.



The Iland Fayal sheweth it selfe thus when it is south from you 8 or 9 leagues.



When the Iland Gratiosa lyeth westsouthwest 4 leagues from you, then it ariseth in this forme.

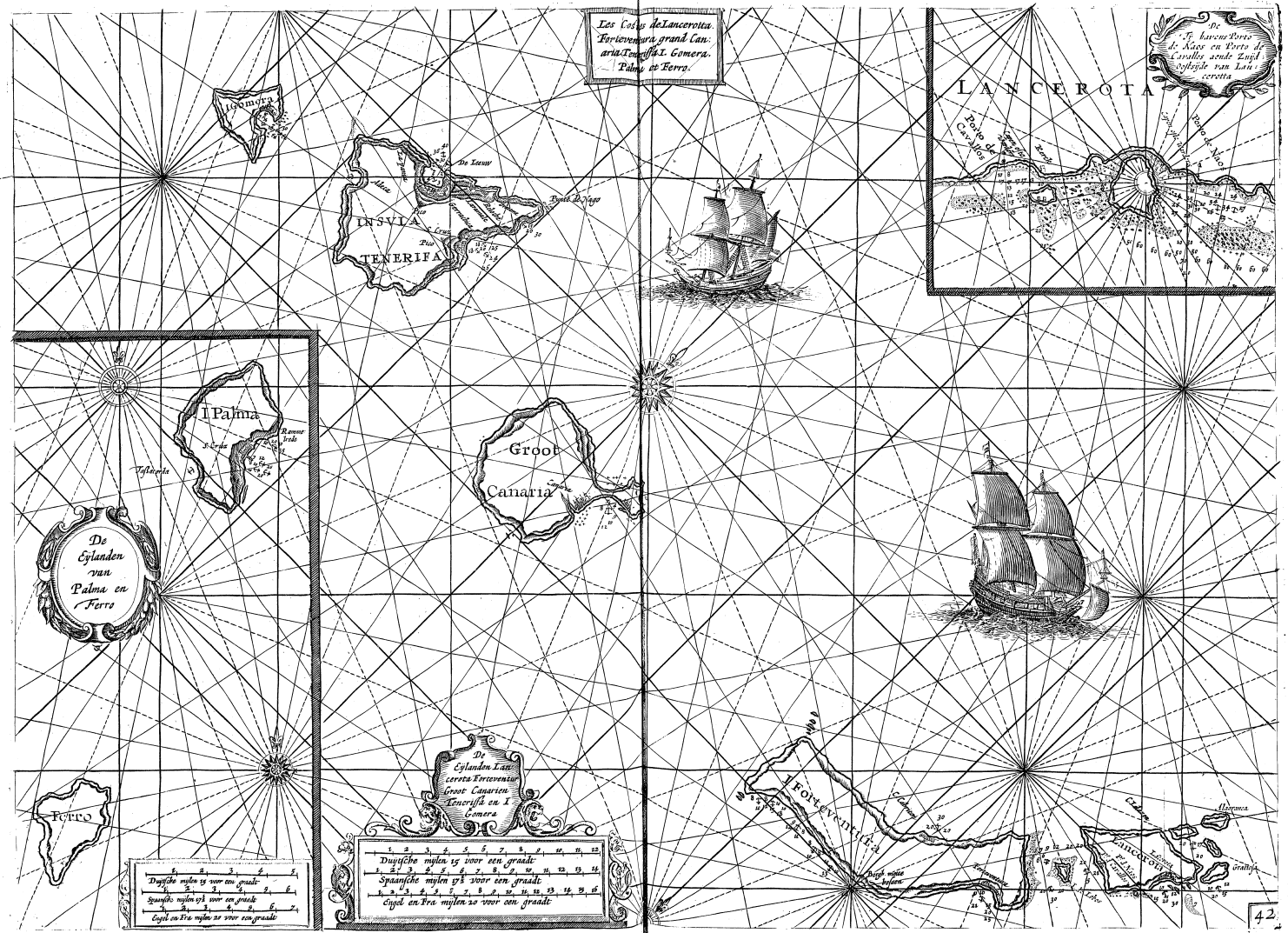
The seventh demonstration,

In which are to be seene the Canary Ilands.

THE chiefest Ilands of the Canaries are 7 in number, Lancerota, Forteventura, or Porteventura, great Canaries, Teneriffe, Gomera, Palma, & Ferro. The Iland Lancerota lyeth from C. S. Vincent s.f. w. distant about 165 leagues. It hath one haven upon the N.E. end, betwixt the 2 Ilands Alagrance and Grotiosa, where men may come in from the n. wards and lye landlockt for all winds, it is deep there 10, 15, and 20 fathom, and they may saile out again to the s. wards along by Lancerota. At the e. side of Lancerota is a good road before the Towne of Lancerota, there lieth a banck to the n. wards of it, which men must avoid, & run about to the s. wards of it there they may anckor in 10, 11, and 12 fathom: on the same s.e. side lye also 2 bad havens a great shot of a calf peece one from the other, the northermost is called Porto de Naos, & the southermost Porto de Cavallos, which we have demonstrated in a large volume in the n.w. corner of this card, and shewed the depths with numb. of feet at high water and springtide,

Porto de Naos, the deepest of these bad-havens, goeth in n. w. and by n. betwixt 2 ledges of rockes, there stand 2 beacons of heapes of stones, in manner as the waders of Norway, which jou must bring and keepe one in the other, and saile so right in through betwixt the 2 foresaid ledges of rockes. The shouldest of the Barre betwixt the 2 ledges of rockes, is but a short space, a great shippes length long and is deepe at high water 17 foot, and at low water 7 foot, so soone as jou shall be over, it will presently 20, 24, 26, and 28 foot deep, then jou must edge up n. and then presently n. e. anckor behinde the rockes which lie to the northwards of the Barre, in the Channell the ground is rocky, hard, and uneven. If a ship should come to strike there, it should presently be broken. The ledge is so without as it is within, very steep, so that jou may come very close unto it, where the anckors stand marked, it is altogether cleane sandy-ground. 30, and 34 foot deep at high with a sea wind there can goe here a great sea, but that happeneth seldome, for the winds doe blow most out of the n. and n. e. and therefore it is almost alwayes there smooth water. This haven is very narrow betwixt the rockes which lie to seawards of you and the shore, it is but a little more then a great cables length broad, and from the havens mouth to the main land about a Cables length and a halfe. The havens mouth also is not broad, but at high water the rockes doe flow a good wayes on both sides under water, which at low water againe are uncovered.

Betwixt Porto de Naos and Porto de Cavallos lie two little Ilands, the northermost is the greatest, at high water men may goe through with boats within the lands, into Porto de Cavallos, but not with shippes, for at low water it falleth dry there with n. Upon the southermost little Iland standeth an old Castle fallen downe, which here to fore hath beene spoiled by Englishmen. From the south side of that little Iland shooteth of a riffe, and to the southwards or the westwards of it lieth in the Barre, which is very narrow, not above ten fathom broad, upon the maine land stand also two little beakons, as at Porto de Naos, which you must bring one in the other, and saile so right in. At high water and spring-tide there is no more then twelve foot water, or a halfe foot more, the ground in the havens mouth is also hard, and nothing else then rocks, where you must goe in over, but within it is cleane sandground where jou may lye a ground without an danger, with a shippe that draweth tenne or eleven foot water. At the highest water, the most part of the rockes on both sides of the havens mouth, lie under water, so that at many places men may goe over them with boats. At low water there remaineth in this havens mouth no more then a foot, or a foot and a halfe depth, so that a shippes boat cannot goe in, within men lie landlockt for all windes, & although it blow very hard, yet the water is alwayes smooth. In both these havens a s. and by w. and n. & by e. moone maketh high water. Neare the Havens there are no houses where Spaniards or Noores doe dwell, then only by Porto de Cavallos a little Church, where they have Masse said on Sundayes, when shippes


Les Costes de Lancerotta, Forteventura, grand Canaria, Tenerissa I. Gomera, Palma, et Ferro.
De Eylanden van Palma en Ferro
De Eylanden Lancerota Forteventur Groot Canarien Tenerissa en I Gomera
De Ft. havens Porto de Naos en Porto de Cavallos aende Engel oosthsyde van Lancerotta
LANCEROTA
Porto de Cavallos
Porto de Naos
INSULA TENERIFA
I Palma
Groot Canaria
Ferro
I Forteventura
Duytsche mylen 15 voor een graadt
Spaansche mylen 17½ voor een graadt
Engel en Fra. mylen 20 voor een graadt

shippes lie there. Men go from thence betwixt the Mountaines to the town, which lieth 3 leagues from thence. He that wil come here must provide himselfe with fresh water for there is very seldom fresh water to be gotten. Upon this land there groweth neither fruit nor wine. In some good yeares it giveth out Wheat, Barley, and Orsilly, the inhabitans are Moores under the command of the King of Spanie.

Betwixt Lancerota and Fortevenfurte lieth a little Iland called Ile Lobos, which is on the outer side, to wit, on the northwest side, very foule. Men may ankor on both sides of that Iland in 15 or 20 fathom also in 6 fathom a shot of a cast peece southwest and by west from the west point of the Iland, there men may lie land-lockt for all windes, except for an northwest and southeast windes. The coast of Furteventura is at the northeast end very foule, with many riffes that lie out, whereupon the sea doth break exceedingly.

The land of great Canaries lieth from Forteventura: w. 19 or 20 leagues distant. The road thery lieth, at the eastside of the Iland, behinde the northeast point, thwart of a Castle standeth upon a Chindle. The foreland n. e. point, is a very high point, with a long small and low sandstrand fast to the other land, so that when it is 5 or 6 leagues n. w. or f.e. from you it seemeth to be an Iland asunder off from the other land. If you desire to go in there into the road, then saile about by that n.e. point, alongst by the Isolettes, leaving them on the starboard side of you, untill that the Castle do lie near about n. w. and by n. from you ankor there in 8, 9, 10, or 12 fathom, then lieth the north point n. e. and by n. and the s. point southsoutheast from you. At the south-end of the great Canaries is a faire sandbay called Masspalomba, there is a good road for southerly windes, and fresh water to be gotten.

The north point of the great Canaries, and the northeast point of Teneriffe called Punte de Nago, lie west northwest, & E. S. E. distant 21 leagues. In Teneriffe is a road on the s. east side before the town S. Cruz, there is a faire sand-bay, a little to the northwards of the town is the best road in 20, or 24 fathom, and then Punte de Nago, the N. E. point of Teneriffe lieth n.n.e. from you, and the s. point s. and by west. When the Pico of Teneriffe is w.s.w. from you, then are you open before this road of S. Cruz, and when you lie in the Road of S. Cruz, you may see the Iland of great Canaries southeast from you about 13 leagues.

On the n. w. side of Teneriffe lieth the road of Garrichica, from the n. e. point Punte de Nago w. s.w. and s.w. and by w. 8 or 9 leagues. He that will ankor before Garrichica, let him ankor to the westwards of the rock with the crosse called the Lion, so that the foresaid rock do lie s. e. and by e. and s. e from him, then he shall lie right before the town, and may see right into the street of the town, thorow the Cloister of S. Dominicus there is clean ground in 36 or 40 fathom the Pieck lieth then over the w. side of the town, nearer to the land, or to the rock then in 35 or 36 fathom it is not cleane, and westwards towards te riffe Lapania it is also foule ground. This is a dangerous road, therefore every one that cometh here, must be very carefull to have their anckors, cables, and sailes very preedy & ready for to shift roads as soon as it beginneth to be a storme.

There is also a little haven before Garrichica, where men may lie with a few ships. For to sayle in there, you must have a Pilot. On the west side of the havens mouth lieth a rock under water, but the sea breaketh alwaies upon it, you may ankor within in the haven in five or six fathom, and must bring two ankors out a head to seawards, with a cable on the rocks, and an anckor out a steam, on the land, so that the ships can not wend to & againe, the ground is there foule, you must buye up your cables with buyes and cask for to keep them from the ground. This is a good haven in Summer, then it is commonly good weather, but in the winter it is not good to come in there with a ship, for the grown sea out of the n. w. commeth running in there sometimes so forcible and strong, that it not possible to hold a ship, although she had 10 anckors out. It hath hapened certain years past, that there was loft in the same haven a great many ships, and a great many houses of the same towne washed away with the great water.

Betwixt Garrichica and the east end off Teneriffe, are three lade place more for to lade wine at, as Marmela Relecho, and Oratama.

At the s. w. end of Teneriffe lieth also another little haven or Bay where is much wines laden called Adessa, there is also lying except it be with a south-west winde, which bloweth there open in.

From Teneriffe to the Iland la Palma, the course is w. n. w. 20 leagues. On the s. e. side the Palma lieth, a faire Bay, with a town and lade-place called S. Cruz. He that commeth from the northwards, and desireth to anckor in the road, let him run so far in the Bay untill he be to the southwards, or past the head, or the bridge, and anckor there in 25 or 30 fathom. In winter time men must not ankor so near the strand because of the s. e. or s. s. e. windes, for then they should lie to near the strand. Men lye there morred with two ankor for the sea winde, with a small ankor out a steam for to keep the ship right in the road, there lieth to the eastwards of the towne a high white rock with a crosse, there is the best road. A little to the northwards of the town, is a faire sandbay, there is good ankoring in 20, 30, or 35 fathom according as men will lie far off, the Road is called the Rammell road. When men lie in the road of Palma, they may see the Pieck of Teneriffe lie east south east from them. The Iland Palma is very high and ful of trees, whereby it is good to be know.

On the south west side of the Palma is another place, where men lade wines called Taffa Corda.

About 5 leagues west from the west end of Teneriffe, lieth the Iland Gomera, which hath on the N.E. side a good haven of 10 fathom deep, where is good lying almost foor all windes, better then in any of the other Ilands, but there is nothing to lade. Men may also anckor without before the haven in twenty fathom, but they must shift roads there as at Garrichica.

The road of Adessa in Teneriffe lieth right over against it, east off from it about 5 leagues.

The road of Palma lieth from this haven in Gomera northwest and by north 16 leagues.

The Iland Fero lieth from the Iland Palma south and by west, distant 13 leagues.

Of the tydes.

On the Ilandes of the Canaries maketh at the most places the natural tyde, to wit, a southwest and northeast moone the highest water.

Of the Course of the Sonne.

From the west point of Forteventura to the Iland of great Canaries east and west	19 or 20 leagues
From the north point of the Canaries to punte de Nago the north east point of Teneriffe w. n. west	21 leagues
From punte de Nago to Garrichica west fouthwest and fouthwest and by west 8 or 9 leagues	
From Teneriffe to Ila de palma west north west	20 leagues
From the west end of Teneriffe to Gomera west	5 leagues
From the palma to ferro fouth and by west	23 leagues
From great Canaries to Salvages northnorthwest	40 leagues
From Garrichica to Salvages n. n. e.	29 or 30 leagues
From Teneriffe to the Ile de Madera north	72 leagues
From great Canaries to the east end of Madera n. and by w.	81 leagues
From the palma to Madera n. and by east	53 leagues
From Salvages to the Serteis of Madera north	50 leagues
The outermoll of the Serteis lieth from Madera	4 leagues
From Madera to S. Michaels n. w.	136 leagues
From the west end of Forteventura to the cape de Bayader s. s.w.	20 leagues
From Lancerota to the cape S. Vincent n. n. e.	165 leagues
From great Canaries to Cales northeast	240 leagues
From great Canaries to the cape S. Vincent n.e. and by n.	210 leagues
From great Canaries to Roxent n. n. e. somewhat eastely	140 leagues
From great Canaries to C. de Finisterre n.n.e. somewhat northerly	370 leag.
From Teneriffe to the Lizart, n. n. e. distant	467 leagues
From the palma to cape Vincent northeast	124 leagues
From Madera to cape de Geer eastsoutheast	213 leagues
From Madera to Safia east	130 leagues
From Cadera to Cales east northeast	200 leagues
From Cadera to Roxent northeast	173 leagues
From Cadera to the C. Finisterre n.e. and by n. somewhat northerly	245 leag.

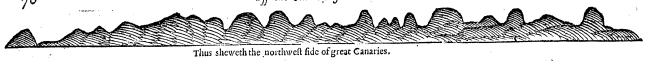
Heights.

The Iland Lancerota lieth in	28 degrees 15 minutes
The north end of the great Canaries lieth in	28 degrees
The north end of the Teneriffe in	28 degr. 40 minutes
Ile de palma in	28 degrees 52 minutes
Salvages in	30 degrees
The southermost part Madera in	32 degrees
But the Northermost in	32 degrees 30 minutes
Porto Santo in	33 degrees

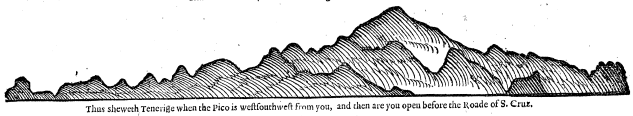
How these Lands doe shew themselves at Sea.

Hil with the Mizen.

Thus sheweth the south-coast of Forteventura, when the hill with the white Mizen is northwest and by north about a league from you.



Thus sheweth the northwest side of great Canaries.

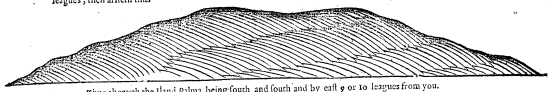


Thus sheweth Teneriffe when the Pico is westsouthwest from you, and then are you open before the Roade of S. Cruz.

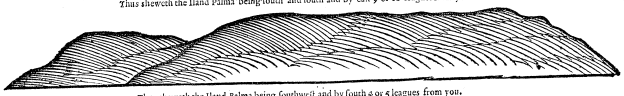
Thus sheweth Teneriffe when the Pico is southeast from you, and then are you open before the Roade of Garrichica.

When the Palma is about east from you 16 or 17 leagues, then ariseth thus

When Porto Santo is south and by west from you about 9 leagues, then it sheweth it selfe thus.



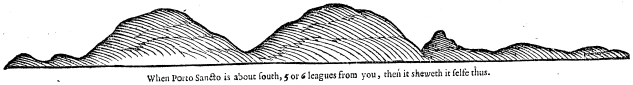
Thus sheweth the Iland Palma being south and south and by east 9 or 10 leagues from you.



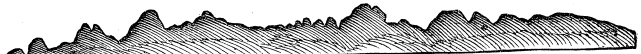
Thus sheweth the Iland Palma being southwest and by south 4 or 5 leagues from you.

When Salvages is east southeast 5 leagues from you it ariseth thus.

When Salvages is eastsoutheast 5 leagues from you it sheweth it selfe thus.



When Porto Santo is about south, 5 or 6 leagues from you, then it sheweth it selfe thus.



Thus sheweth the Iland Madera, when you come from the northwards, and that the middest of the Iland is 10 or 12 leagues from you, the southeast end is very ragged when you are neere by it, the northwest end is a steep point going sloping downe.

Thus sheweth the Iland Madera being southwest from you.

When Madera is westsouthwest from you 13 leagues, it ariseth thus.

When Madera is south from you 16 leagues, it sheweth it selfe thus.

FINIS.

The first part

THE FIRST BOOK

OF THE

FIERIE-SEA-COLVMNE,

WHEREIN

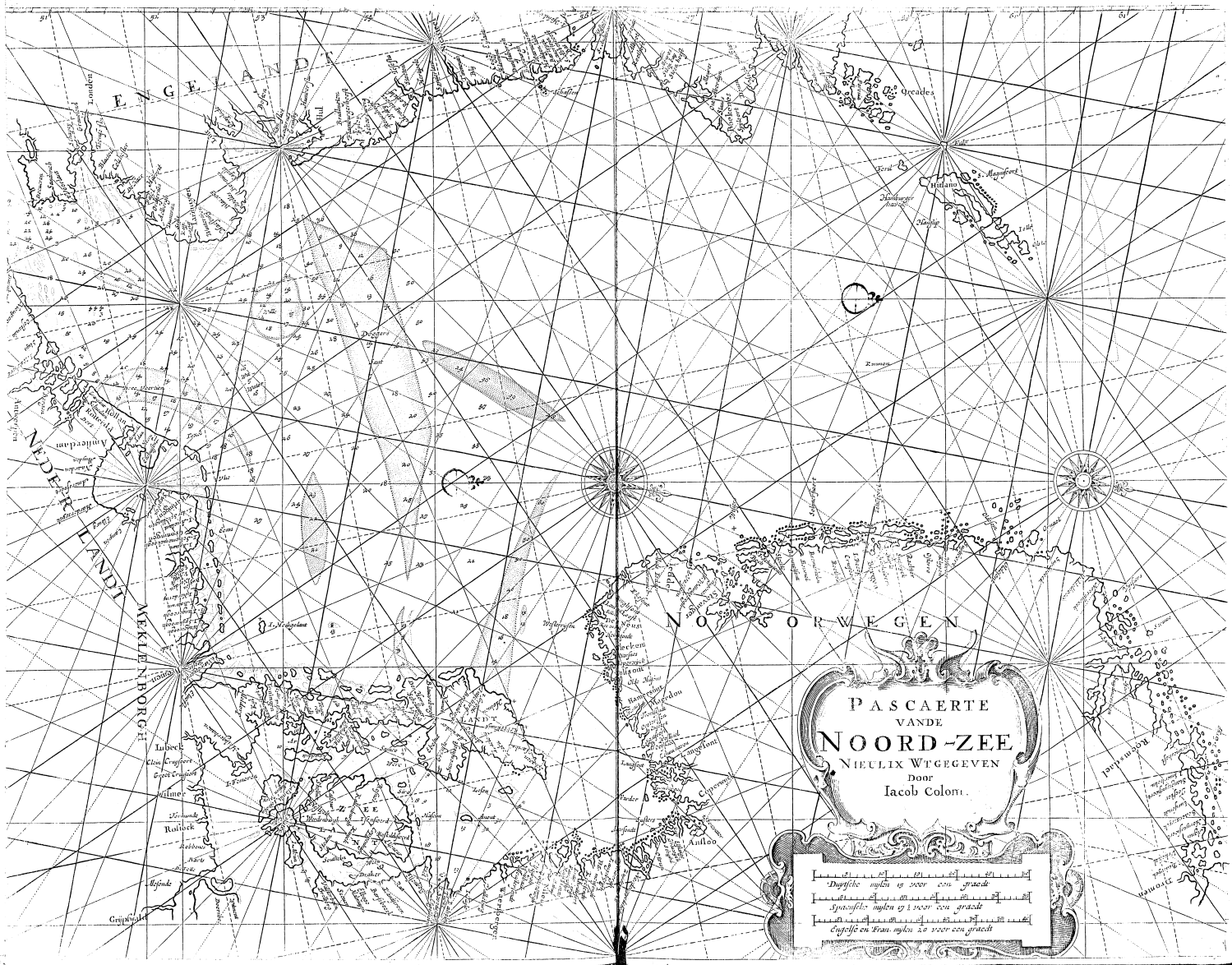
The Descriptionof the whole

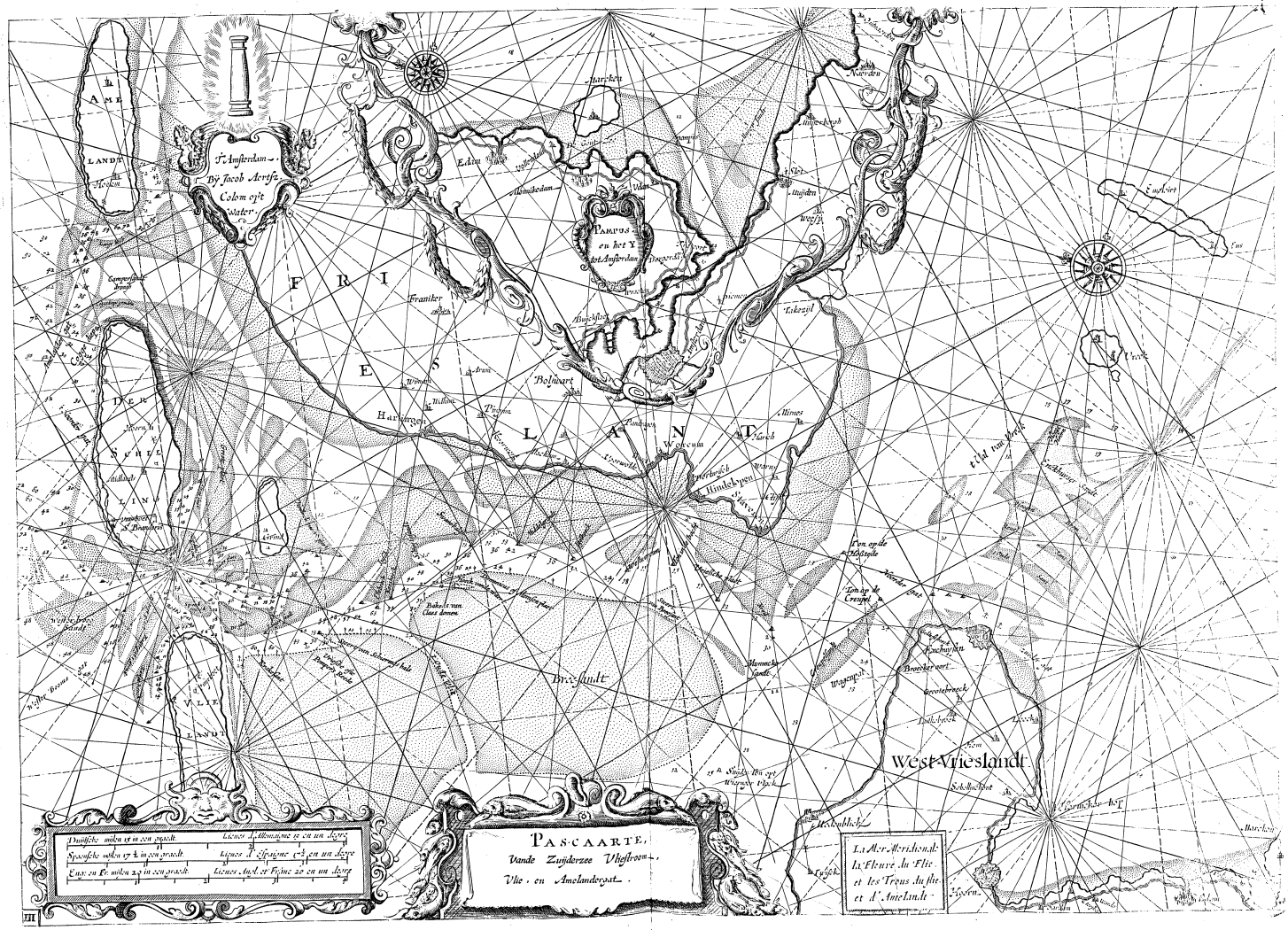
NORTH-SEA.

VVith priviledge of the High and Mighty Lords, the States Generall, for twelve yeares.

Printed at Amsterdam,

By Iacob Columne, on the water, in the Fierie Columne,


ENGELANDT
NEDERLANDT
MEKLENBORGH
NOORWEGEN
Groenlandt
PASCAERTE
VANDE
NOORD-ZEE
NIEULIX WTGEGEVEN
Door
Iacob Colom.
Duytsche mylen 15 voor een graedt
Spaensche mylen 17½ voor een graedt
Engelsse en Fran. mylen 20 voor een graedt


T'Amsterdam
Bÿ Jacob Aertsz.
Colom out
Water
FRIESLANDT
Bolswart
Harlingen
Franker
Leeuwarden
Sneeck
Workum
Hindelopen
Stavoren
Enchuysen
Medemblick
Hoorn
Alckmaer
Edam
Monnickedam
Purmerent
Beemster
Purmer
Wormer
Zaen
Tessel
Vlie
Brielle
Goree
Delft
Rotterdam
Dordrecht
Gorcum
Schoonhoven
Oudewater
Leyden
Haerlem
Amsterdam
Utrecht
Amersfort
Naerden
Muyden
Weesp
Gooy
Ysselmeer
Zuyder Zee
Brielsche Maes
Maes
Texel
Vlieland
Ameland
Schelling
Terschelling
West-Vrieslandt
Brixlandt
Pas-caarte,
Vande Zuÿderzee Vlieströom,
Vlie, en Amelandergat.
La Mer Meridionale
le Fleuve du Flie
et les Trous du flie
et d'Amelandt

The Second part of the Firie Columne.

THE FIRST BOOKE,

Of the

EASTHERN and NORTHERN NAVIGATION.

Containing

The discription of the North-Zea, the coast of Holland, Friesland, Halsten, Iutland, Meklenburgh, and Denemarck to Vaalsterboen, in the Iland of Rugen, and with all the coast off Norway to Dronten, as also the eastside of England and Schotland.

The first demonstration,

Where in are described the southsea, the Vliestreame, the Vlie, and the channell off Ameland.

HOw men shall fayle from Amsterdam to Urck (about Enchuserfand) and from Enchusen to the Crippel and Creyl is described in the first demonstration of the first booke concerning the Western Navagation.

Marks of the buyes upon the East-side & Cripple

The thwart markes of the buyes, both upon the Cripple and Hofstede, are Crootebroeck and Hem two sharp Steeples right one in the other, and Warnis, a little sharp steeple in Freesland to the south side of the Cliffe of Staverne, then you have the length of these buyes, which lye each of them in three fathom, the one on the east shoare, and the other on the west shoare upon the tayle of the Cripple. There is in the right farewaye, two foot lesse then five fathom, and soft ground. When the steeple of Medenblick commeth to the N. wards of the house of Medenblick, so farre as the houfe is broade, then you are cleare of Cripple sand, and past it; goe then on northwest, and northwest and by north to the buye upon the Creyl, according as the winde and tyde shall be, the rigt farewaye there, is deep five fathom scarce. Thwart of the Creyl, in sailing out, or about the Creyl, in sailing in, that is a little within the Creyl on the north shoar, lieth alongst the reach towards the buye upon the Hofstede, a hard sand or plate, called the south Creyl, upon which there is no more then twelve foot water, at low water, betwixt that banck and the north shoare it is three fathom deepe, and soft ground, and to the southwards, or the westwards of it, foure fathom and an halfe. When Mirnes, a little flat steeple in Freesland, cometh over alonq countrie house to the southwards of the cliffe of Staverne, then you come right thwart of that forefaid plate.

The Kreyl

South-kreyl.

Marcks of the Kreyl.

The markes of the buye upon the Creyl, are that sharpe steeple of Twisch over the Cornemill to the westward of Medenblick, and that little flat steeple of Mirnes to the southside or east side of the cliffe. The right farewaye there is four fathom and an half, and five fathom deep, soft ground, the buye lieth in four fathom, if need buye lieth in foure fathom, if need require, men may runne wel a cables length about to the eastwards of it. From the buye upon the Creyl to the buye upon the Freese plate, the course is north and by east: When the steeple of Twisch commeth a little to the N. wards of Medenblick, then keepe them so standing, so long as you can see it, and then you shall not faile within any showldes betwixt that plate and the Creyl. Betwixt the buye upon the Creyl, and the Freese plate, on the west shoare, alongst the Reach, lyeth a hard sand, called Monickfand, which men may be foul of, if they runne somewhat to farre to the westwards.

Freese plate.

Monnick sand.

When you are come about the Creyl, you may goe on north and by east (with a shippe that draweth but little water) over the tayle of Broad-sand, right to the buye upon the sand, called West worckum, but with shippes of great draughts, you must keep the right farewaye. For to finde the deepest water upon the flat: bring Pandragen, a little flat steeple (standing to the westwards of Worckum) to the westwards of a litle village, which standeth also to the westwards of Worckom, and fayle so right with it, that is a good longst marke of the buye upon the Freese plate, and so you shall runne right with the buy, when as that Warnes and the Mirnes come one in the other, to the northwards of Staveren, then you have the length of the buy, which lieth on the west side of the Plate, you must runne alongst to the westwards of it, there is the deepest water: when you come from the northwards, you might fayle within the Freese plate on the east shoare.

Being past the forefaid buye upon the plate, goe on northnortheast, untill that Pandragen come betwixt the little village and Voorwolde. If that you have then the cliffe through Staveren, then you have the deepest water upon the showldest of the flatte, then men runne commonly a little more northerly unto the buye in the Bight, and alongst to the westwards of it, which lieth right in the farewaye in sixteen foot, but alongst to the eastwards of the buye is the deepest water, the farther into the Bight towards Freesland the deeper. The marke of this buye, is the little flatte steeple of Mirnes on to the fourthwards of Molqueren. Bring that forefaid little flat steeple in Molqueren, and keepe it so standing, and then you come in the farewaye of the buye of West-worckum, that is a very good marke, when the buyes are taken away.

Buye in Bight.

The old thwart markes of the buye in the bight, are Mirnes, Molqueren, Hemelum, and a little long village, when they stand in four parts. Betwixt the buyes upon the Freese plate, and in the Bight is the showldest of the flatte. When the buye in the Bight is on your broad side, then go on north and by west, somewhat more westerley; unto the buye of West-worckum, which lieth on the east shoare in fifteen foot at low water, upon these marcks: a little sharpe steeple, far within the land called Hasick, commeth over a little village, to the northwards of Hinlopen, called Dertwich, the right deep thwart of it is three fathom. The old markes are two villages next to Mackum, upon the water side, standing N. E. off from it, when these stand a little asunder, one from the other, you see yet two little steeples somewhat to the northwards of Bolswaert, almost one to the other, neare about as the other upon the water side stand a sunder; the one is called Idsegahuysen. The thwart markes are a high house on the east end of Coudom, that commeth with in a capstone barres lengt to the south end of Hinlopen. From thence to the buye upon Yghelhoeck, the course is north, the markes there of are, a little sharpe steeple with the first long village to the northwards of Worckum, called Geest, when that little steeple commeth in the innermost swampe of that long village then you have the buye, that is a good thwart: the longst marks are, the sharpe steeple of Pingom over the flat steeple of Coorenwaert upon the water-side, and Pandragen to a little house to the northwards of the villagie with the swamp, or when the mil of Staveren standeth betwixt the towne and the Blockhuyse of Stavern, these are all good longst markes of the buye upon Yghelhoeck.

Buye of Westworckum.

Yghelhoeck

From Yghelhoeck to the middle ground the course is north, the right deepe in the Middle ground is 7 fathom in the fareway betwixt West-Worckum and Yghelhoeck the right deep is four fathom, soft ground, the east shore is flat and the west shore steep. The buye of the Middleground lieth upon these marks: the two sharpe steeples Arum and Pingem one in the other about northeast from you: or Bolfwert right to the northward of a Countrie house, to the northwards of Mackum, these are good thwart marcks of the Middle ground. The longst markes are: Kinswart, (that is the runner) cometh behind the Church of Surich, then you are right in the fareway. The Church of Surigh standeth upon the water side, upon a poinct that lieth out about to the northeast and by north from the buye, or when the flat steeple of Wynaem (to the northwards of Harlinge) commeth betwixt Midlum & the east end of Harlingen, then you are right in the Middleground, on which side that Wynaem standeth neareft unto, the west shore is steep, the east shore indifferent flat, you may tun

Middle-Grounds.

over it in three fathom, and come againe in five fathom towards Friefland. From the Middle-ground outwards to the Flye, you can fail within no tailes of land on the weft fhore.

Swane-balgh. Being paft the buye in the Middle-ground, then goe on northnorthweft unto the buye upon Swanebalgh, which lieth in three fathom on the eaft fhore, the thwart marcks there of are Bolfwaert a little fhort houfe to the fouthwards of Cornwaert. When you runne over betwixt the buyes of the Middle-ground and Swanebalgh on the eaft fhore more eafterly then in three fathom, that you come againe in four or five fathom, you might (in failing out) fail behind the fhoulds of Swane-balgh, or when you are bound in behinde the fhowlds of the Middle-ground, the weft fhoare thwart of this, you may found in four fathom, or three and a half, over againft the buye upon Swane-balgh, on the weft fhore is good ground for to anchor in.

Schuyte-fand. From the Buy upon Swanebalgh to the Buy upon Schuytefand the courfe is N.W. fomewhat northerly: the thwart markes there of are Wynaem over the heighelt part of Harlingen: the longeft markes are, Bolfwaert the northwards of the Sluys, which lieth to the northwards of Weens, this buye lyeth in 6 fathom on the eaft fhoare, upon a taile or point, which you might faile within when you fayle out, the right deep thwart of it is 7 and 8 fathom, the weft fhore is indifferent flat, which you may found indifferent flat, which you may founde in 4 fathom, the eaft fhore is fteepe, but a little without the buye, is flat all alongft to Keeshoeck, and you may found it all alongft unto the Sloot. In failing up, you might fayl within the weft fhore over againft Schuytfand, or a little to the fouthwards of it in 3 fathom, or 3 and a half into Deadbalgh, behind a tayle Point of Waert. of fand, called the point of the Waert, but keeping in 4 fathom from that fhoare, you can not take hurt of it. In failing up with a forflood, keep the eaft fhore, or els you fhould be lightly carried there with into the forefayd balgh, behind the Waert, before you fhould be aware of it. Upon the poynt of that waert ftandeth a drift beacon, and 2 to the northwards or the weftwards of it, which men doe call the beacons of Claefoomen, and to the fouthwards of it ftandeth a beacon upon Dominicus plate, or, (as the Pilots do name it) Meynfen plate. The marcks for to fail alongft this long reach are: Mackum with a mill upon the water fide, and a village with a little flat fteeple to the fouthwards of Mackum, called Idfegabuyfen when Pandragen commeth betwixt Mackum and that village then you fhall go cleare of that Forefaid taile or Deadbalg: If Pandragen come neareft to Idfegahuyfen, then you are to near the forefaid tayle or plate, or if pandragen come neareft to Mackum, then you are to neare the eaft fhore.

From Schuyfand to the buye upon Keeshoeck, the courfe is weftnorthweft, or northweft and by weft according as the wind and tydes fhall be. In that long reach goe litle more then half tides alongft the deep, the afterflout and fore-eb fall twhart over there to the weftwards, and the after-eb and forefloud right contrarie to the eaftwards. The marks of the buy Keeshoec. upon Keeshoeck, are Franiker fteeple betwixt the mille and the towne of Harlingen, or to the maftes of the Shippes which lye in the haven.

This buye lieth on the eaft fhore, the right farewaye thwart of it is eight, nine and ten fathom deep.

Betwixt Keeshoeck and Schuytefand, or betwixt the beakons of Klaefoomen and the poynt of the water lyeth a little narrowe plate alongft the rach, allmoft in the middeft of the farewaie neareft to the weft fhoare, whereupon it is not deeper then four fathom, or three fathom and an halfe, when men turne to windewards the yare over it with two or three eafts of lead.

Old Flye. Weftwards from the buye upon Keeshoeck lieth the Old-Flie, it lyeth in firft fouthfouthweft, and then forth to the buye upon the Neffe, in the Teffel ftream. The after flood with the fore-ebb fall in very ftrong into this chamell. In fayling upwards you might fayl within it in four fathom. The marks of it are, the fteeple of Franiker right to the fouthwards of the fteeple of Harlingen. From thence outwards off unto Schieringhshals the weft fhoare is very fteep, in eight fathom you fhall be clofe by the fhoare. The fareway betwixt thefe buyes, and thwart of the buye upon the Elbowe is tenne and eleven fathom deep.

Wolfs-hoeck. From Keeshoeck to Wolfshoeck the courfe is firft northweft and northweft and by north unto the buye betwixt them both, by fome called the Schor tun and by the Pilots the buye Schor tun or the buy upon the Ellebowe: and from thence to the buye upon Wolfshoeck, north, or fomewhat more eafterly, which lyeth in four fathom on the eaft fhore.

From the buye upon Wolfshoeck unto the buye unto Schieringhals the courfe is northnorthweft, and northweft Schie-ringhals and by north according as the winde fhall be. To the northwards or to the eaftwards of the buye upon Wolfshoeck goeth up a broade bight foutheaft farre into grounds, fo deep as the right farewaye 2 called the Infchot, comming in you might The In-fcoot. fayle within in feven fathom, the forefloud falleth from Schieringhals very ftrong into it, and the fore-ebbe to the contrarie, very ftrong out of it upon the taile of Schierings hals, whereby many fhips are miscarried.

Schieringshals is a tail of land, which fhooteth off from the weft fhore, upon it lieth a white buye in three or four fathome, weft fhore, upon it lieth a white buye in three or four fathome, comming in from without, men might fayle within it in fixe fathom, the right deep betwixt Wolfshoeck and Schieringshals in nine fathom.

From Schieringshals to Longfand, the courfe is northweft Longfand and northweft and by north, betwixt them both on the weft fhoare it is fhallow water, and the beft roade of al the Flye ftreame, there goet alfo little tyde. The right deepe is eight, nine and ten fathom, Longfand men might fayl within it on the eaft fhoare, in fayling up, but if they keep themfelves in fe- Monck-ven or eight fathom, they fhall not come to neare neither of Longefand nor Schieringshals. When the eaftermoft houfe upon Grindt commeth a little to the northwards of the weftermoft, then you have the length of the buye upon Longfand. From Longfand to the Sloot the courfe is forth northnorthweft, the right deepe is tenne fathom, or men run alongft by the beakons upon Crakefand untill they come into the Sloot.

The Iland Flieland is three leagues long, and a land very good to be known: upon the eaft end lie high white fand hilles, and to the weftwards it is a land ful of fhort low hommocks or nobbes. Upon the weft end ftandeth a Church with a mill to the eaftwards of it. From the weft end fhooteth off a riffe a good wayes into fea. To the weftwards of this riffe, betwixt Flieland and the Eyerland goeth in a deep, called the Weftergatte, or Weftfiel deepe, which is not for great fhips, but onely for Fifher boates, there is not above eight or ten foot water. Upon the eaft end ftandeth a mill with a cape, the which are markes for to avoid the ground, which lye before the Flye.

The eaft end of Flieland, and the weft end of Teffel lye eight leagues afunder.

To eaftwards of the Flyeland lyeth the Schellingh, which is about three leagues long. Upon it ftand four churches, with one chappell, the weftermoft is a high ftat fteeple called Brandaris. About the middeft of the Iland ftand two fteeples, the weftermoft is flatte, called Zeerip: the eaftermoft is fharp, and is called Midlands. To the eaftward ftands a high fharp fteeple called the Horn, and chappell called Saint Ichus. Upon the eaft end lye high white fandhills, and upon the weft end lieth but one, called the Lit, betwixt midlans and the Lit it is low Nubby land. Upon the weft end ftandeth a cape with a Fire-beakon, where on there is fired by night.

Stortemelck.

For to fayle into Stortemelck (that is the Land deepe of Flieland) you muft bring the Cape upon the eaft end of Flyeland, and the mill one in the other, which fhall ftand then from you foutheaft and by eaft, or a little more eafterly, fayl right in with them, and you fhall fall right with the outermoft buye, which lieth in five fathom upon the outermoft point of the long banck, which banck is on the northfide indifferent flat, fo that when you come from the north, you may run alongft by it upon your lead in five or fixe fathom, and fo alfo find the forefayd outermoft buye. You may alfo (for need) run alongft fomewhat to the eaftwards of the outermoft buye, over the end of the long banck in three fathom; or 16 foot towards the fhoare, but not to the eaftwards of the fecond buye, but a good wayes alongft to the weftwards of it, which lieth even the fourthwards of a poynt of another narrow taile of fand, upon which thwart of the buye is but eleven foote water, betwixt that tayle and the long banck runneth a creek to the eaftwards into the grounds, of five fathom depth. It happeneth fometimes that the fhippes that come over the end of the long banck, and finding again deeper water, thinck that they are in the right deep of Stortemelck, and luffe up into it, but they run into the forefayd fhoare or creecke, in betwixt the two tayls of lands, not without a great danger with a wefterly winde, where they muft go out back againe. Comming from the weftwards alongft by Flieland in foure or five fathom, you fhall not alfo fayle to run in fight of the forefaid outermoft buye. He that falleth about Stortemelck by night, let

let him bring the fire-beakon foutheaft and by eaft from him, and run in fo right it untill hee come by the fhoare, and he fhall run alongft to the weftwards of the outermoft buye. In Stortemelck lye 7 black buyes, and one white buye, in fayling in you muft leave al the black buyes on the larboard fide, & run alongft to the fouthwards of them: and the white buyes on the ftarboard fide, like as al other white buyes as well in the Boomsgat, the Jetting, as upon the Flye ftreame. The fecond buy called the outermoft Drogs dry, lieth in 11 foot upon the fhowldeft of the channell, to the fouthwards of it alfo is no more ten eleven foot water, but a little within, it is againe fixteen foot deep. The third is called the innermoft Droghe dry, which lieth ii fixteen foot, the right deep betwixt them both is 3 fathom. The fourth is called Heyck hoock, betwixt this it is in the fareway five fathom deep over againft the fourth lieth the white buye at the ftrand, thwart of it runneth of a little tail from the fhore, which (in fayling out) you might faile within it. Upon this white buye, or unto the fourth buye from without, it lieth in eaftnortheaft, from the fourth to the fifth about eaft, and then more and more foutherly. The firft buye, is called the outermoft poynt buye, the fixth the middlemoft point buye, and the feventh or laft the innermoft point buye.

Betwixt the outermoft and the middlemoft point buye, neareft to the outermoft runneth off a taile of fand from the fhore, which men might faile within when they come in, which groweth out fometimes as a farre as the buye, and then the Deepe breaketh through again by the fhoare, and foureth away the taile altogether to the north fide. From the innermoft buye you muft run in to all alongft by the ftrand of Flye-land, or on fouthwards the buye upon the Plate.

Booms gat.

For to fail in at the Boomkens-gat comming out of the fea, or from the weftwards: bring the Cape upon the Schelling and the fteeple of Brandaris one in the other, which fhall then ftand from you, fouth and fouth by eaft, run then right in with them, and you fhall find the outermoft buye without, the channell in thefe in 5 and 5½ fathom a little without, and to the eaftwards of the outermoft poynt of the fteepe ground, which are without upon the north fide fo fteepe, that you fhall be in twelve fathom very clofe to them, whereupon remaineth no more then five foot water. Clofe to the weftwards of the forefaid Cape ftandeth a Fire-beacon, whereupon is fired every night.

Comming by night out of the eaft, you muft have a care of the turning of the water about the wall, and runne along there by upon 3 fathom, untill the fire is thwart from you, and fo along upon 3 fathom unto Feyhook, then is the fire about eaft and eaft fomewhat northerly from you, where you get deeper water. You may runne upon 4 fathom without round about the fhore grounds. The eafter Beans-gatte is not well to fayle in for one that is not acquainted there, becaufe there are fo many Irre-grounds as by Oefel. The fore-floud falled there eaftnortheaft thwart over this hole, almoft untill halfe floud, before it goet rigt inward, unto the contrary, the fore-ebbe falleth alfo weftfoutlweft thwart over the hole, almoft untill halfe-ebbe, before the fame falleth right out, therefore is it beft with an northeaft or eafterly wind and fore-ebbe, to go on a good way by eaft the Cape and tower of the eaft wall, and runne along thereby upon 3 fathom, (being wholy cleane and flat) untill you are within the Cape and tower. The fecond Buy lieth with it the utmoft poynt of the ftore-grounds, diftand from the firft about fouthweft and by weft, the fhore grounds are on the end fo fteep, that is clofe thereby 18 foot deep, the eaft-wall is in going up very flat and begins to be dry from 18 upon 16, 14, and 12 foote. By eaft the fecond buye, is the farewater 3 fathom deep, there by weft is it 5 fathom, but not wide, therefore you may not runne there farre along by weft, becaufe with a fore-ebbe you fhould come eafily againft the fhorre-grounds, which are on in-fide very deep. You may runne on the eaft wall upon the lead, fo clofe by the fame as you pleafe, though with a ftorme the Sea doth burne and breake thereon untill the 2 Buye. The fecond, third, fourth, and fifth buyes doe lye all upon a felf-fame diftance from each other, to wit, fouthweft and northeaft, the third on the eaft-wall, though you may runne thereby beyond eaft, the eaft-wall there befides is very flat, and the fare-water by weft the Buye feven fathom deep. The fifth (called the buye upon Fey-hooke) lyeth alfo on the eaft-wall, (though fomewhat nearer then the third) upon 5 fathom, men may fayle there along by eaft but not farre the farewater there by weft is 7, 8, and 9 fathom deep. You may faile in upon the lead (till you are paft this buy) along by the eaft-wal, alfo by night or darke weather you need not to be afraid of any danger, for there within is it wide and bread. From Bey-hooke jou goe unto Robbe-gat. On the north fide of the Robbegat, upon the top of the drye Plate, ftandeth a beacon in the midft of the Robbe-gat, next unto the drye Plate, lieth a fmall dry place, upon which before in the comming in there lieth a buye, betwixt the fame buye or the fmall drye place and the forefayd Beacon is the deepeft water, but you muft runne in clofe by the Beacon, for not to be mis lead with the ftreame, which doth fall there thwart over the drye Plate, beneath and betwixt the fmall drye place, and the Rofin-plate, is it wider, and the Robbegat ftretcheth fouthweft and fouthweft and by weft in. Being through the Robbegat, there runneth the ftrand of Vlieland, where you may paffe along clofe by.

Weſter beams-gat.

For to faile into Wefter-beams gat, or hole comming out of the weft, bring the Cape &, fteeple of Brandaris over againft an other, which is then eaft and eaft & by fouth from you, runne thereupon, and you fhall finde the ut moft buye; there is 6 fathom water, keepe the Cape and Steeple fo ftanding until you come by the fecond buye, bring then the Steeple a great handfpikes length by fouth the Cape, and faile thereupon, then you fhall paffe along betwixt a black and white buye, there is upon the dryeft place 17 foot with low water, from thence you come unto 6 and 7 fathom, and fo forth in the right Beams-gat, on the north wall it is deepeft water being wide and broad, fo that a man well could looſe up into this hole, the Streame runneth there right in, although it be ftill weather.

For to faile into the Jetting, comming through the Robbe- The Jet-gat, beyond the Rofin-Plate, you may runne unto the Buye ting. upon Langefand, and fo forth along betwixt the white and black buyes, leaving (in failing up) the black on the larboard, and the white on the ftarboard, untill you come againft the Beacons upon the Nakens, then jou may plainly fee from ther one buye unto the other, faile then fo forth along, by the Beacons upon the Nakens, eaft fouth eaft on, untill Brandaris come clofe by Grind, (but not therein) hold it then fo ſtanding, and runne fouthward on, you fhall fayle then juſt upon the taile of Hendrick't Iaerts Plate, which jou may underfaile on the eaſt-ſide; Leave the ſame on larboard, and runne there by weſt along fouthfoutheaſt unto the laſt buye, which lieth upon the ſouthpoint of the foreſaid Hendrick't Iaerts Plate. Over againſt the Beacons upon the Nakens, on the ſouth-wall lie two white buye, the eaſtermoſt upon a taile, which in failing off jou may underſaile. There by four, betwixt the two laſt black bujes by the weſt wall, is the Road where the Shipps (going unto Harlingen) doe ſet for to unlade them ſelves.

NOTA.

All dephts, as heere before is deſtribed, as well of Stortemilke as of Boomkens gat, is ſaid, to be of the loweſt water; with halfe floud it is 3 foot deeper, it fleweth upon the foreſaid places with halfe floud it is 3 foot deeper, it floweth upon the foreſaid places with a common tyde fit and an halfe or 6 foote up and downe. The number of the dephts in the Mappe, of the ſlie and Amelander-gat, are to be under ſtood of 6 many foote as the number is, as by example: by the utmoſt bay of Boomkens-gat ſtands 66 which is 66 foote, or eleven fathom that is 6 foot for one fathom.

'Ameland-gat.

Two leagues to the eaſtwards of Schelling lieth Ameland, lying E. N. E. and W. S.W. foure great leagues. Upon the W. end of Ameland ſtandeth a Cape and a great thick flat fteeple, called the Hoelme, the roofe of this Church is broken off, but the after fronte with the roofe ſtandeth above the fide walls to the e.wards of the church of Hoelm ſtaudet a mil, with a houſe to the weſtwards of the mill, alſo a broad flat towre. About the place whe Midlandchurch was wont to ſtand, lye three or foure white ſandhilles, which are low, flat, and long, towards the eaſt end it is nobbie land, with white amongſt it. From the weſt end of Ameland runneth off a riff, almoſt three leagues into ſea, called Born-rif, which is upon the outer ſide verie Borrnſſe. fteepe: come no nearer it then in 12 fathom, comming from the eaſtwards you cannot faile within it, but in fayling alongſt by it in ſeven fathom, youſhall not run a boweles caſt along without it.

For to faile into Ameland-gat, comming out of the ſea, bring the cape upon the eaſt end of the Schelling, right over the ſteeple of Horne, which ſhall then ſtand from you S. S.W. a little more weſterly, faile in right with them, untill that the cape upon Ameland, and the ſteeple of Hoelme are one over the other, then leave the firſt markes, and fayle in upon

the

the second, and you shall finde the outermost buye, which lye somewhat within the outermost point of Bornriff. Comming from the westwards, run along by the strand of the Schelling in five, or sixe fathom and an halfe at low water, and you shall not fail to sayle right upon the outermost buye, and then the Cape and steeple upon Ameland shall also come one over the other, and stand from you east, or a little more southerly. Comming alongst by the Schelling in four fathome, you shal not sayle within the Koggedeeps ground, over against then lieth the first buye on the south side of Bornerif, run alongst to the southwards of it, keeping the cape and steeple one over the other, untill you be past the second buye, which lieth thwart of the west end of Kampersand, the fareway betwixt these two buyes is five and sixe fathome deep.

Koggdeep grounds.

Being past the second buye, bring the steeple somewhat to the northwards of the Cape, and goe on eastnortheast towards the third buye upon Gerritshonden, for to avoyde the plate which lieth off from the southside, towards Born-riff, on it lye two white buyes, the first over against the a foresayd third black buye, the other over against the fourth black buye, lying from the third about southeast, leave the black buyes all on the larboard side, and the white on the starboard side, and run through so betwixt them both, the plate is, on the north side indifferent flat, so that you may run to it upon the lead, reckon wel your tydes, especially be carefull of a fore-ebbe, which falleth very strong over that channell northnorthwest into sea over Born-riffe. Betwixt the second and third buye in the fareway it is eight and nine fathom. Betwixt the third and the foresayd plate seven fathom. Being past the fourth buye, both sides are very steepe, and the fareway 8, 9, 10, and 12 fathom deepe, goe then in southsoutheast, untill that the steeple of Holm com over the fourth peynt of Ameland where the boats lye, and then you come in the bight, where it is on the southside flat, and good anckoring in five or six fathom, the north shoare is very steepe.

Gerritshonden.

For to saile further into Horsen, go away from the bight eastnortheast alongst by the south side in five or six fathom, so long untill Heynooms chamber (being a red tyled house) come a handspikes length to the nortwards, or to the eastwards of Hoelm-church, anckor there in 5 or 6 fathom, you shall lye there in good ground, and sheltred for al winds, also there goeth little tyde, in this fareway it is 12 fathom deep, the northshore is there very steepe. These foresaid depth (like as also those of the Flye) are sayd of low water.

Of the tydes.

At Amsterdam a northeast and soutwest moone maketh the highest water.

At Horne, Enckhuysen, and at Urck, a north and south moone.

Bewixt Cripple-sand, and the Creyl, a north and by west and south and by east moone.

Upon the Friese and Wieringer flat, a northwest and southeast moone.

In the Flye and Ameland-gat a southeast and northwest moon maketh high water. Before the flye the flood falleth to the eastwards thwart over the grounds almost untill halfe flood, before it setteth in the Boomkens-gat. Likewise the Ebbe to the contrary falleth to the westwards thwart over the grounds, almost untill half ebb, before it setteth right out at the channell. The afterflood runneth about with the fore ebbe and fall alongst Flyeland out a Stortemelck, but the foreflood runneth right into Stortemelck.

Of the depth about these places, and in what depths men may see the lands.

The Ilands Flyeland, the Schelling, and Tessel, men may see in 15 and 16 fathom, Thwart of the chelling the ground is white sand.

The steep grounds or Petersand and Born-riffe, are very steepe on the sides, close by them it is 12 or 13 fathom deepe.

Ameland men may see in twelfe fathom, the depth of 13 and 14 fathom runneth far of to seawards, so that men cannot see it in 15 fathom.

Courses and distances.

Peter-sand, or the steepe grounds and Born-riffe, lye northeast and by east, and southwest and by west	4 leagues a sunder.
From the Flye to the northeast end of the broad-fourteens, the course is westnorthwest	8 leagues
From the Flye to Tinmouth or wellcastle, westnorthwest	90 leagues
From the Flye to Hitland, the course is northwest, and by north, somewhat northerly	172 leagues
From the Flye to Faire hill, northwest and by north about	204 leagues
From the Flye to Senyerens, the course is north and by west, somewhat northerly	206 leagues
From the Flye to the Naes, north and by east about	85 leagues
From the Flye unto the Riffe in 16 fathom north and by east 63 or 64 leagues	
From Flye to Beevenbergen, the course is northnortheast or a little more easterly about	69 leagues
From the Flye to Rinkopper, or Numer-deep, northnortheast, or a little more easterly about	58 leagues
From the Flye to the Iland Sill, on the coast of Iutland, the course is northeast	46 leagues
From born-riffe to the Naes, the course is n. a little more easterly	82 leagues
From born-riffe to Holy land northeast and by east	33 leagues
From born-riffe to Wranger-oogh, eastnortheast	29 leagues
From born-riffe to the Wester-Ems	14 leagues

How these Lands doe shew themselves at Sea.

Thus sheweth Flyeland when you are two leagues thwart of from it.

Thus sheweth the Schelling when you sail alongst by it about two leagues from the land.

Ameland sheweth it self thus, when you are two leagues thwart of from it.

The second demonstration,

Wherein the Scholholgh, Lauwers, both the Eemses, the Weser, the Elve, and the Eyder, and other channels of the sea betweene them.

Schiermonckoogh.

Schiermonck-oogh lieth from the eastend of Ameland east somewhat northerly 2 leagues, it is a little low plaine Iland, about 2 leagues long, there standeth no speciall thing upon it to be knowne, but upon the West end two capes, with a withe sandhill, otherwise it is all whit lowe blakish sandhils, or hommocks, (but highet then upon the east end) and mingled with white: the eastend is a long flat stand, with little low rough sandhills. When you bring the two capes upon the west end one in the other, and runne so in, you shall finde the outermost buye, which lyeth without the channell, at sea, in 7 fathom, or there abouts. Sometimes there lye two and sometimes thre buyes in the channell, which you must leave on the starboard-side, and runne alongst to the eastwards of them, being come within the channell, jou shall find also beacons on the W. shore, which you must fallow all along, untill jou come to Ostmerhorn, where jou may anckor. The lying in, and depths of that channell doe alter and shift oftentimes, and sometimes much within a thor time so that there is no certainty to bewritte of it, whernnto me migt trust.

Rottum.

Foure leagues to the eastward of Schiermonckoogh, lieth the Iland Rottum, and betwixt them the little Iland the Bosch. A few yeares past through, setting of spyrie grasse or heath, there was grown two or three handsome sandhils, but are now againe altogether blowne away, & altered into a plaine strande, which the sea at high flouds doth altogether runne over.

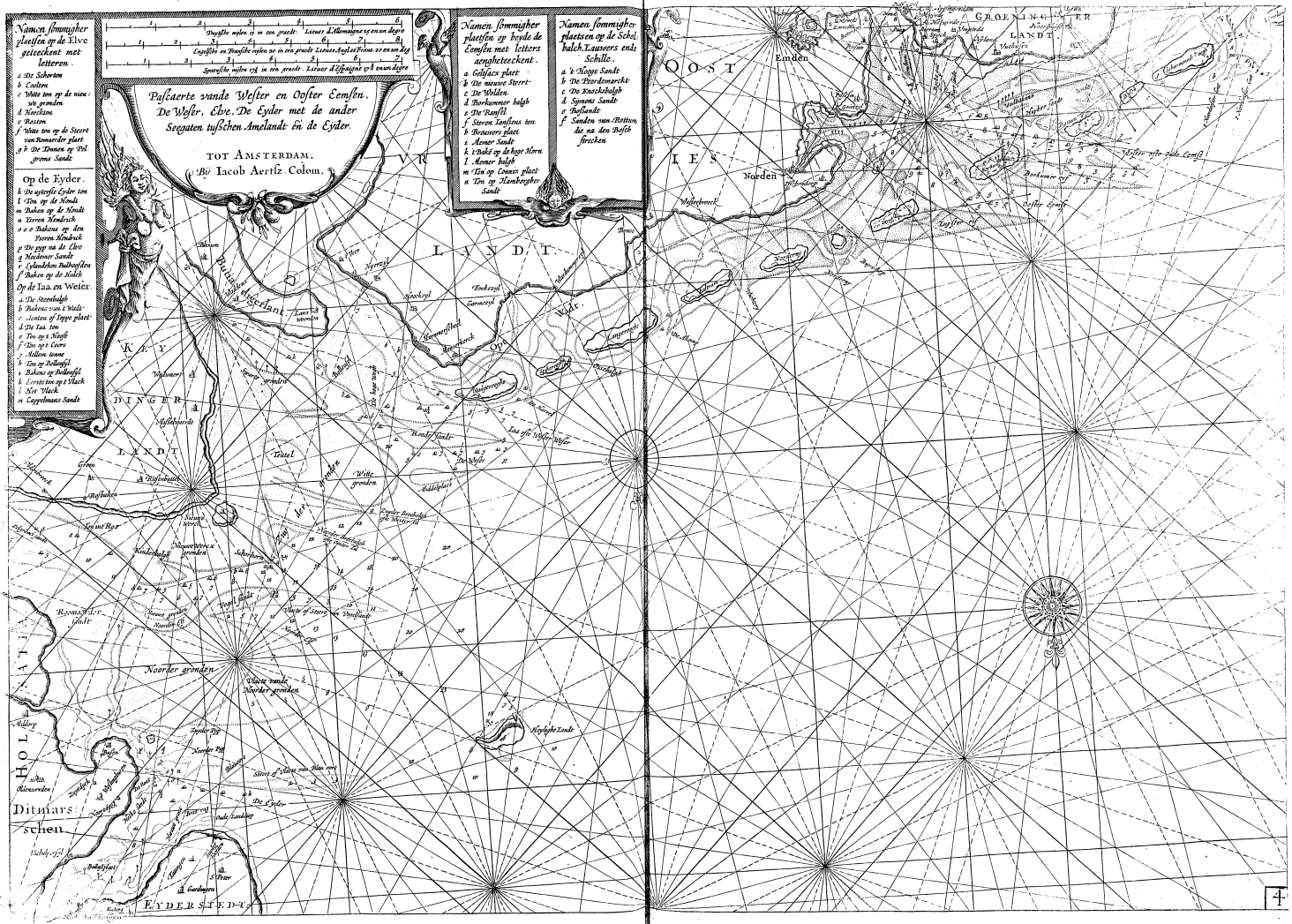
Betwixt these Ilands the Bosch and Shiermonickoogh was wonte a channell to go in of indifferent depth, called the Lawers, which is now most east, to by the foresaid strand of the Bosch, which is grown in al alongst unto the oogh, so that there is no more remaining, them a narrow and showld creeck.

To the eastwards of the Bosch goeth in the Schille, also an altering and uncertain channell, which is sometimes deepe, and sometimes againe showld, and the channell shifteth too and againe, so that there is no certainite to bewritten of it, whereunto men might trust.

The Olde Weser Eemses.

When you set the Capes upon Rottum over against another, the same shall stand the southeast somewhat southerly comming out of the sea, sayl ther frely upon, you shall find then the utmost buye, and you may see then the Steeple of Backum E, somewhat southerly from you, and the west-end of Rottum southeast, and by south, and lieth upon the taile of the many-Bags-Plate, being a white buy, with a little wind, upon the top, lying upon six fathom with low water, being marked in the mappe with the letter A from the first buye unto the second, is the course southeast and by south, marked with the letter B, that is the first black buye, upon 7 fathom on the south wal, leave this buy, in sayling in, on starboard, and the white buye on the larboard then you have the steeple of Borckum from this foresaid black buye, east, and the Capes upon Rottum, southeast somewhat easterly from you. From the first black buye unto the second, third and furth buye, with the letter C. D. E. is the course east and by south. Comming out of the west next unto the Lauwers or Bossand, hold it off from the shore upon five fathom, till you are past thereby, saile then freely east on, and

Mony Bags-plate


Namen sommigher plaetsen op de Elve geteeckent met letteren.
a De Schorton
b Coolen
c Witte ton op de nieuwe gronden
d Heeckens
e Reesten
f Witte ton op de Steert van Romerder plaet
g h De Tonnen op Pelgroms Sandt
Op de Eyder.
k De oosterste Eyder ton
l Ton op de Mondt
m Baken op de Mondt
n Yeren Hendrick
o o 2 Bakens op den Yeren Hendrick
p De pyp na de Elve
q Nieuwer Sandt
r Cylindrius Bollenvlesten
s Baken op de Nolck
Op de Jade en Weser.
a De Steenbalgh
b Bakens van t'Wolt
c Steuten of Jeppe plaet
d De Tas ton
e Ton op t Nieuw
f Ton op t Coors
g Alden tonne
h Ton op Bollenvlet
i Bakens op Bollenvlet
k Leeste ton op t'Vlack
l Het Vlack
m Cuypelmans Sandt
Namen sommigher plaetsen op beyde de Eemsen met letters aengheteeckent.
a Gelfaes plaet
b De nieuwe Steert
c De Wolden
d Borkummer balgh
e De Ransel
f Steven Loosens ton
h Brouwers plaet
i Almer Sandt
k t'Dubbé op de hoge Horn
l Almer balgh
m Ton op Cranes plaet
n Ton op Hamborgher Sandt
Namen sommigher plaetsen op de Scholbalck Lauwers ende Schilt.
a 't Hoogt Sandt
b De Peerdemarckt
c De Knackebalgh
d Simons Sandt
e Bolsandt
f Sandton van Rotten die na den Bosch strecken
Pascaerte vande Weester en Oosterr Eemsen, De Weser, Elve, De Eyder met de ander Seegaten tusschen Amelandt en de Eyder.
TOT AMSTERDAM.
Bij Iacob Aertsz. Colom.
Duytsche mylen 15 in een graedt Lieues d'Allemagne 15 en vn degre
Engelsche mylen 69½ in een graedt Lieues Anglaises 69½ en vn degre
Spaensche mylen 17½ in een graedt Lieues d'Espagne 17½ en vn degre
OOST
VRIES
LANDT
KEY
DINGER
LANDT
HOLLANDT
Ditmars
schen
EYDERSTEDT
Emden
Norden
GROENINGER
LANDT
Noorder gronden
Hoghste Londt
Witte gronden
Buytenste Grondt
Ruyten Grondt
Ins esse Weser
Weser
Eyder
Elve
Jade
Tadel
Oldenb.
Bremen
Stadt
Hamborch
Lubeck
Lunenburch
Stade
Ritzebuttel
Cuxhaven
Brunsbuttel
Glückstadt
Pinneberch
Altona
Hamborch
Harburch
Lauenburch
Ratzeburch
Lubeck
Wismer
Rostock
Stralsundt
Greifswalt
Anclam
Stettin
Pasewalck
Prenzlow
Berlin
Potsdam
Brandenburch
Magdeburch
Halberstadt
Hildesheim
Hannover
Minden
Osnabrugge
Munster
Coesfelt
Wesel
Duysburch
Arnhem
Nimmegen
Cleef
Gelder
Zutphen
Deventer
Campen
Kampen
Zwolle
Hasselt
Steenwyck
Coevorden
Meppen
Lingen
Bentheim
Almelo
Oldenzeel
Enschede
Haeksbergen
Borculo
Lochem
Doesburch
Arnhem
Utrecht
Amersfoort
Naerden
Gorcum
Dordrecht
Rotterdam
Delft
Leyden
Haerlem
Amsterdam
Enchuysen
Medemblick
Hoorn
Alckmaer
Monnickendam
Edam
Purmerende
Zaendam
Saerdam
Texel
Vlie
Vlieter
Schelling
Ameland
Schiermonnickoge
Borkum
Rottumer
Eemsse
Dollart
Bourtanger
Veen
Oosterr Eemsse
Wester Eemsse
Hondsbalgh
Nieuwewerx gronden
Schelpe
Roomer Hil
Roomer Gat
Noorder Pot
Zuyder Pot
Steert of Vlacte van Blee ryen
Vlacte vande Noorder gronden
Vlie
Vlieter
Schelling
Ameland
Schiermonnickoge
Borkum
Rottumer
Eemsse
Dollart
Bourtanger
Veen
Oosterr Eemsse
Wester Eemsse
Hondsbalgh
Nieuwewerx gronden
Schelpe
Roomer Hil
Roomer Gat
Noorder Pot
Zuyder Pot
Steert of Vlacte van Blee ryen
Vlacte vande Noorder gronden
Hoghste Londt
Witte gronden
Ruyten Grondt
Ins esse Weser
Weser
Eyder
Elve
Jade
Tadel
Oldenb.
Bremen
Stadt
Hamborch
Lubeck
Lunenburch
Stade
Ritzebuttel
Cuxhaven
Brunsbuttel
Glückstadt
Pinneberch
Altona
Hamborch
Harburch
Lauenburch
Ratzeburch
Lubeck
Wismer
Rostock
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Wesel
Duysburch
Arnhem
Nimmegen
Cleef
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Zutphen
Deventer
Campen
Kampen
Zwolle
Hasselt
Steenwyck
Coevorden
Meppen
Lingen
Bentheim
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Oldenzeel
Enschede
Haeksbergen
Borculo
Lochem
Doesburch
Arnhem
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Amersfoort
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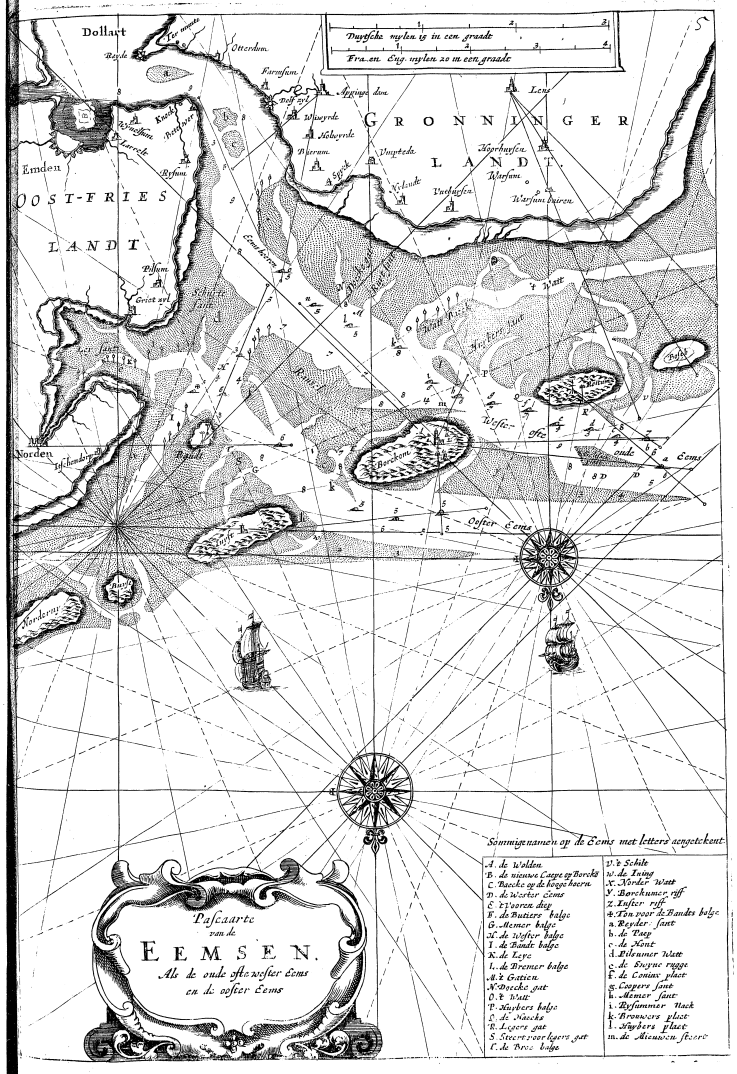
Gorcum
Dordrecht
Rotterdam
Delft
Leyden
Haerlem
Amsterdam
Enchuysen
Medemblick
Hoorn
Alckmaer
Monnickendam
Edam
Purmerende
Zaendam
Saerdam
Texel


Dollart
Oterdum
Farmsum
Aggum
Leer
GRONNINGER
LAND
Emden
OOST-FRIES
LAND
Pilsum
Greetsiel
Norden
Eems
Oster Eems
Duytsche mylen 15 in een graade
Fra.en Eng mylen 20 in een graade
Sommige namen op de Eems met letters aengeteeckent
A. de Wolden
B. de nieuwe Caspe of Borcke
C. Boucks of de kogelbaeren
D. de Werker Eems
E. Pvoren diep
F. de Buiters balge
G. Memer balge
H. de Oster balge
I. de Bande balge
K. de Leye
L. de Bremer balge
M. t Gatien
N. Boecke gat
O. t Wad
P. Huybers balge
Q. de Naecke
R. Legere gat
S. Steenroye legers gat
T. de Bros balge
V. t Schile
W. de Lang
X. Norder Watt
Y. Borckumer riff
Z. Oster riff
a. Een poor de Bandes balge
a. Reyder sant
b. de Baeg
c. de Hont
d. Delenmer Watt
e. de Buyne rugge
f. de Coninx plaet
g. Coppers sant
h. Memer sant
i. Reysummer Nack
k. Brouwers plaet
l. Huybers plaet
m. de Micmaen steene
Pascaarte van de EEMSEN. Als de oude ofte oester Eems en de oester Eems

and you shall runne within through Gelt-sack-plate upon 5, 4, and 3 fathom, afterwards upon 8 fathom, then you shall come by the fourth black buye, which doth lie upon 4 fathom.

Borckummer-Riffe. The Burckummer-Riffe is on the out side, and flat upon the end. When the Capes upon Rottum doe stand southeast from you, there you can come over along the Riffe. You shall have then upon the taile off the Riffe, with low water not leſſe then 7 elles water for it is flat and broad, on the in-side it is very shoare and steepe, and goes in with a Bight but you may wel goe thereon upon the lead.

From the fourth buy, till in the Bight of Rottum, is the course east southeast marked with F. and lieth upon 7 fathom, from this unto the high-plates-buye, is the fifth black buy, marked with G. and lieth upon 7 fathom, as also forth unto

Huyberts-buye. Huyberts buy (H) is the course east and by south, when the cape upon the south side and the steeple come over against another (which stand southsouthwest from each-other) then you are next unto Huyberts-buy, goe then eastsoutheast on, till the innermost Huyberts-buy (I) which lieth also as the first Huiberts-buy upon 6 fathom, on the west-side of these buyes have you, Huyberts-plate, which is now seperated from Huyberts-sand, and men may under saile it with low water, it is in the fareway 12, 13, and 14 fathom water, from the innermost Huyberts-buie (I) into the buy before the Wat, called Steven Ianſz-buy (K) is the course southeast, and lieth upon 8 fathom, being past the buy upon Huiberts-plate, you must turne somewhat off, and have a care off Borckum and Mieuwen-steert, which shooteth off from the Woldes or the South-end of Borkum which men may underſaile in 5 fathom, when they will be in that fare-water,

Steven Ianſz. Mieuwen-steert.

Westward from Steven Janſons buy stand five Beakons, there by south goeth the Wat in, north and by east, almost so far from Steven Janſons Buy, as the innermost Huyberts-buy doth lie from Steven Janſons-buy, there shooteth also an out-point or Riffe out, called Ranſel you may underſaile it upon 5 fathom, the marckes of this Racke, (and for to have a care of the taile or Ranſel) are these: upon the South end of Borckum lie two little Downes called the Wolden, keepe the steeple off Borckum on the west-side of the little Downes, then you shall not fall into Ranſell, in this Rack is it deepe 9 and 8 fathom,

Ranſel.

Ruytobakken. from Steven Ianſons buye unto Doecke buy (L) is the course eastsoutheast, you doe find there by South of this buy a Beakon (M) called Ruyte Baken, the buye lieth upon five fathom, and in the farewater it is deep three fathom, the sloud falleth very strong behinde this buy into Deeke-gat, where off you must have a care. From Doeke-buy unto the Camper-buy, is the course eastsoutheast, marked with N; from thence unto the buye of Eems-horn O is the course Southeast, doe lye

Marckes of the buy of Kemshorn. but upon 5 fathom, in the midst off the fare-water, is it deep 7 fathom, the marckes off the buy off Eems-horn are these: When the Cloyster of the Dam (a flat Church) comes a like with holwirde, then you have the length of the buy, then stand these markes about south and by west from you, from the buy on Eems-horn, which stretcheth southeast, you doe find on the South-wall five Beakons, sail al beyonde the same, from thence on the Groniger-Dike, southsouthwest, untill you get the Church of uytwirde and the Cloyster of the Dam one in another, turne then next unto the side of Delf-sile, for being past Boecke-buy, you may goe forth on the Westwall, unto Otterdum, upon 5, 6, and 7 fathom, and doe not come nearer for the same is very steep; the Eastwall, in sailing up, you may goe on by the lead upon 6 fathom, behinde a Plate, called the Hondt, an hand sand, and more inware lieth also another plate, called the Paep, being also an hard sand, & runneth through betwixt Killetie, but the Wester-wall is weake and Chy-ground, till unto Otterdum, you must keep all the West wall, and follow the Beakons which doe stand there all along, the same Rack stretcheth southsouthwest and south and by west, and also beyond in the Bight soutsoutheast, and by the land of Groningen Southeast.

The Easter Eemse.

Runne upon the grounds of Borckum upon 5 fathom and set the steeple of Borkum, with the new cape (short by made there) over against another, then they shall stand south from you, or comming out of the west, keep the steeple upon Iuyst, east and east and by north from you, then you doe finde the first buy, or utmost buy, upon five fathom, from the utmost unto the second is the course east and by north, from the second unto the third eastsoutheast upon 5 fathom, these doe lie al upon 5 fathom, in the farewater it is first 5, 6, 8, and 10 fathom deep.

The end of the Iuyster-Riffe, betwixt the utmost and the second buy, is on the inside so shorre or steepe, that you may not goe upon the lead, but more inward from the second buy is it flat, from thence you may goe in good order upon the lead.

The third buy lieth upon the point of Brewers-plate, on the east-side of Borckum, which you may underſaile, the taile is on the northside very steepe saile so forth eastsoutheast on, till you come next the Beakon upon high horn, there is a good Road upon 5, 6, or 7 fathom, and good to lye fort southerly wind, though with a sloud, you may well goe one east and somewhat northerly, otherwise you should come within the point of the foresaid Brewers-plate; the Iuyster-Riffe lieth inward from the second buy or flatneſse, so that you may goe on there upon your lead in 5 or 6 fathom; when you are a little by east the third buye, goe then southeast on, there besides is the Easter-Eemse wide and broad, the east-end of Borckum is flat, you must have a good care upon your lead, when as you saile there out or in with a deep-going Shipp, and so you doe come with an southeast course on the Kings-plate, there upon the point or taile lieth a buye, and upon the plate a Beakon, leave this buy and Beakon on Starboard. At norden in East-Freesland stand two steeples close together, whereof one is thick and great, and the other low and smal, when these steeples come with the north-end of Bandt (a little iland upon the Wat) besides each-other, you have then the buye upon Kinhs-plate these are good markes there along, and when the steeple of Iuyster comes northnortheast from you, that are good thwart markes of the same buye.

Brewers-plate.

Kingsplate

From the buye upon the Kings-plate, unto the buy upon the Westerbalgh, is the course southeast, so long untill you have both the Capes upon Bandt over against each-other then is the buy southsouthwest from you, From the first buy of the Westerbalgh unto the second, is the course all southsouthwest, also is the whole Westerbalgh, you can doe no harme when you keep both the Capes upon Bandt standing over against each-other, for to runne out of the Balgh, but upon the last you must goe on somewhat westerly. From the Balgh-beakon, to the beakon upon Eems-horn, is the course South and north; to saile from these Beakons through the Gaetjen (or hole) unto knock, is the course Southsoutheast, and from thence unto Loegge-horn East.

To the east of Iuyst lieth Buys, the shorteſt and smalleſt Iland that is upon all this coast. It riseth up in two Hommocks, where of the Hommock, which is the most easterlyest is the higheſt and sharpeſt.

buysdeep. Betwixt Iuyst and Buys goeth in the Buysdeepe: the Worcounsell or Embden was wont to set it with buyes, but it is donne no omre, in regard it doth so oftentimes shift.

Norderny. Two great leagues to the eastwards of Iuyst Buys, Norderny, betwixt them both lye that little Iland Buys. Norderny is to be known by a broad flat tower, which standeth upon the west end, but sometimes men can hardly perceive it. About the midst of the Iland, neareſt the east end lieth a high white sandhill, thereby it is beſt to beknown. For there the Land is al ful of Hommoks. Betwixt Norderney and buys goeth in a channell, called the Norderdeepe, or Norderny.

A great league to the eastwards of Norderny lieth the Iland Baltrum, which is about two leagues long, a little Norther then Norderny. Upon this Iland standeth no speciall thing, whereby men may know it: but upon the east end a high sandhill, which is sharp above, the west end is low sandhilles. When the foresayd high sandhil is southeast and by east from you then it is round to see to. Upon the West end there goeth a swamp through.

baltrum.

Betwixt Baltrum and Norderney runneth in a channell, called the Wichterie, there is no certainty to be written of it, that men may truſt to, sometimes there is two fathom water, and more, and sometimes no more then foure, or five foote.

Wichterey

The Iland Langeroogh lieth a league to the eastwards off Baltrum which is foure great leagues long, and hath on the off-side a faire strand, an three or four sandhilles, where by men may know it, which lye from about the middeſt of the Iland unto the west end, a good wayes one from the other, the tops of them are plaine and flat. Betwixt Langeroogh and Baltrum goeth in the Acumy, where in lye two buyes. It is no channell for great ships, it lieth out alongst by the foote strand of Langeroogh, first northeast, and then somewhat more easterly, but it is not to be truſted to, because it altereth and shifteth very often.

Acumy.

Betwixt Langeroogh & wrangeroogh liet the Iland Spy-keroogh which is about a league long. At the east end there was wont to lye a little Iland, good to be known, called Luttick Spykeroogh: which is now altogether gone. Upon Spykeroogh standeth noting, whereby men might know it,

Spykeroogh.

but it is a black land, with Hommocks and Nobbes like to the other ilands betwixt Spyckeroogh and Langeroogh goeth in the Oxebalgh.

Oxebalg.

Wrangeroogh. Wrangerooghlieth two great leagues to the eastwards off Langeroogh, which is a great league long, bein a little plaine white land: Upon the eaſt end lie high broad white sand hillocks: Upon the weſt ende the Earle off Oldenbourgh hath caused to be made a great thick tower, with 2 spires, when they ſtand on right in the other, then you are by the outer buy off the Weſer; the forefaid towre, men may see two kenning of at Sea. Betwixt Wrangeroogh and Spykeroogh goeth in the Harrel, about fouthfouthealt, but it is not to be trusted becauſe it ſhifteth very often.

The Acumy and Harrell are ſet both with buyes by the Wor-cunſull of Embden: Theſe channell ſerve not but for ſmall ſhips, like as all the other, lying betwixt the Eaſter-eems and the Weſer.

The land lieth from Bornriffe to Wrangeroogh eaſtnorth-eaſt and weſtſouthweſt 29, or ſome will have it 30 leagues.

For to fail into the Iade or weſter Weſer with a ſoutherly winde, runne to the ſtrand of Wrangeroogh in foure fathom, with a weſterly winde runne no further then five fathom, and lead it in ſo by the ſtrand of Wrangeroogh, in 4, or 5 fathom, untill you come a good wayes within, or to the end off foote ſtrand of Wrangeroogh, there you ſhall finde the firſt buye in five fathom at low water: Menſer-church ſhal then ſtand ſouth from you. Thwart of this firſt buye the redde ſand is very ſteepe, which you muſt leave on the larboard ſide, and the buye on the ſtarboard ſide, when you come in. Thwart off this firſt buye commeth a taile, ſhooting off from the Southſhoare, that is the innermoſt point of the Stonebalgh, which men might, at unawares ſail within in three fathom and an halfe, or foure fathom, the firſt buye is laid upon the point of this taile. The Stonebalgh goeth into the eaſtwards off Wrangeroogh the ſouth ſide where off is ſteep, but the north ſide flat, which men may ſound. In this Balgh it is ten foote deepe at low water. From the firſt buye to the ſecond, and alongſt to the third, the cauſe is eaſt, the ſecond buye lieth in two fathom and an half: The third, that is the Jade buye, lieth in three fathom, upon the ſhowldeſt off the High-waye. It is very uneven betwixt the firſt and the third buye, you ſhall get wife depth of five or ſix fathom and then again 2 fathom or 2 fathom and an half.

For to faile from the Jade to the Weſer, then faile by the third buye over the ſhowldeſt of the high way on eaſtnortheaſt to the Mellembuye, and youſhall finde at low water upon the foresaid ſhowldeſt place, or by the third buye, no more water then 9 or ten foote, and being over there you ſhall get againe deeper water, and then you are in the Weſer: Reckon well your tides for the ebbe falleth very ſtrong northnortheweſt out at the Jade, and the ſloud to the contrarie, very hard inwards, ſo that you can hardly ſtemme the tyde, when the weather is ſomewhat calme, whereof you muſt be very carefull.

For to faile up into the Jade, leave the foresaid third buie on the larboard ſide, and go from thence moſt ſouth up, unto the point off the Deyke, called Hammerſcheel, when you are come by the Dyke, there the Iade is wide and broad, without the foresaid Dyke ſtandeth a beacon or two, for ſhipps that are bound over the Wadt: If you will faile further, up into the Iade, then keepe the weſt ſhoare, until you come thwart of the church without a ſteeple, which ſtandeth by the Dike, there you muſt leave the weſt ſhoare, becauſe of the Aenten or leppe plate, which ſhooteth of from the Veer, alongſt the weſtſhoare, and ſometimes lieth drie at low water. The weſt ſhoare lieth moſt ſoutheaſt ſomewhat ſoutherly.

A ſouth and north moon maketh the higheſt water upon the Jade, and it floweth with an ordinary tide 2 fathom and an half up and downe.

The Weſer.

For to ſaile up the Weſer, come no nearer Wrangheroogh then ſeven fathom, being in ſeven fathom, then edge off from the ſhoare into 11 fathom, and you ſhall finde the firſt buie at the comming into the Wefer, lying in ſeven fathom upon the taile off the Red-ſand, Menſer Church (that is a flat Church without a ſteeple in Vrouken-land) is then ſouthſoutheaſt from you. Being thwart of the firſt buye, and that the weſt end off Wrangeroogh is ſouthſouthweſt from you, then you run over the taile of the Red-ſand in 5 fathom.

From the outermoſt buye to the ſecond, third, fourth, and fouth ſide (to wit the Red ſand) neareſt each a point different from Menſer church, ſo that Menſer church lieth from the ſecond ſouth and by eaſt, from the third ſouth, from the fourth ſouth and by weſt, and from the 5 ſoutſouthweſt. The fifth buye is called the buy upon the Head, for to know that from all the other buyes, there ſtandeth a ſtaffe upon it of a halfe fathom long. With a white knotte upon it. Over againſt the buye upon the head lieth a white buye on the white grounds. Betwixt all the foresaid buyes you muſt reckon wel your tydes, the ſloud cometh out of the northweſt, and falleth alongſt over the Redde-ſand, & the ebbe to the contrary. The right deep thwart of theſe foresaid buyes, in the comming in is 11 fathom, but thwart of the buye upon the Head, 5 fathom at low water.

Middle-plates. Right before the Weſer lieth the Middle-plate, the Eaſtermoſt or the Innerſide beginneth right to the northward of the buye upon the Head by the white grounds, and lieth alongſt the reach unto the third buye, to reckon from without, and is on both ſides flat for to ſound about. On the weſt ſide of the forefaid plate lieth a white buy about from Menſer Church, which you muſt leave in comming in on the larboard-ſide.

For to ſail from the buye upon the Head, out again to the eaſtwards of this plate unto the Elve. Then ſound it out about the white grounds, in 4 or 5 fathom, until you be out in the ſea.

For to ſa le further up into the Weſer, the courſe from the buye upon the Head unto the 6 buye is S. E. and N. W. Menſer Church ſhall then lie from you ſouthweſt and by ſouth, the Weſer is thwart of it about 20 fathom deep. From the ſixth buye upon buye to the ſeventh, that is, the buye upon the Cours, or the Wapper buye, or the ſoutweſt buye, becauſe Menſer Church lieth ſoutheweſt off from it, the courſe is ſoutheaſt. The Iade buye lieth about ſouth, or ſouth and by weſt from this buye. From the buye upon the Cours unto the Mellem buye the courſe is yet ſoutheaſt, which you might faile within are unawares is fixe fathom. Menſer Church liet off from it ſoutheweſt and by weſt. From the Mellem buye to the buye upon Bollenzile the courſe is ſoutheaſt ſomewhat eaſterly, you muſt reckon your tides there verie well, becauſe the ſloud falleth exceding hard in to the weſt ſhore, Langworder Church lieth right ſouth and by eaſt from that buye upon Bollenzile, over againſt it upon the point of the black grounds lieth a white buye, come no nearer to it at half flood then 4 fathom and an half, you might unawares fail within that point (in ſailing in) in 4 fathom. From the buye, upon Bollenzile to the beakon upon Bollenzile the courſe is ſouthſoutheaſt, or ſoutheaſt and by ſouth. Langworder church lieth about ſouth from that beakon, you muſt leave it on the ſtarboard ſide comming in within that beakon upon Bollenzile is a good roade for a weſterly winde. From the beakous upon Bollenzile to the firſt buye upon the flat, the courſe is ſoutheaſt til you come ſomewhat beneath the beakon, and then alongſt eaſtſoutheaſt. The marks of the firſt buye upon the Flat is, when you can ſee through the belhoals of Langworder ſteeple, then you are thwart of the firſt buye, Langworder Church is then from you ſomewhat more ſoutherly then ſouthſoutheaſt. From the firſt buie upon the Flat to the ſecond, the courſe is e. ſ. e. Betwixt theſe two buies ſtande five beakons on the larboard ſide, upon the black grounds. From the ſecond buie upon the flatte to the Meyland the courſe is ſoutheaſt and by ſouth. Being come thwart of Wadnis or the Meyland, fail then cloſe along by the green ſhore, untill you come within Bixem, there is the rode for great ſhips that are bound to ſea.

Like as upon the Jade, ſo alſo upon the Weſer a ſouth and north moon maketh the higheſt water, it floweth there alſo 2 fathom and an half up and downe.

Southgrounds. To the eaſtwards of the Weſer lie the ſouthgrounds of the Elve, there go in a faire deep Balghs or Creeks of 10, 12, and 13 fathom. The Till, called alſo Broadbalgh, is the weſternmoſt, and lieth ſo for to the weſtwards, that men can but even ſee the New-worcke from thence.

If it ſhowld happen that comming to the eaſtwards off the Weſer, you ſhould be beſet upon the ſouthgrounds, being a left ſhore, and be in danger, then faile to the ſouthgrounds in 4, 5, and 6 fathom, but not much nearer alſo, for they are ſomewhat ſteepe. When you (running ſo along by theſe grounds upon the ſame courſe) ſhall get 8, 9, yea 10, or 12 fathom ſoft ground, then that is certainly of the Broadbalgh or Wefter Till, take then the ſounding of which ſide that you will, and found it about by the grounds in 4 or 5 fathom, and you ſhall find a mongſt the ſands ſmooth water, and good rode, and may lie ſheltred for all winds. The weſter Till lieth in firſt E. S. E. alongſt by the north ſhore it is deepeſt, on the S. ſhore you can not fail within, any tailes, in ſailing out, but you may in ſailing in: when you come ſomwhat further in, lieth up more to the ſouthwards: there are divers Balghs or channells,

channells, where men may faile through that are acquainted.

Wefter Til. The Eaſter-til or Broadbalgh lyeth betwixt the Weſter-til and the Hondtbalgh, which runneth in 7 fathom into the eaſtermoſt point, (or the old Scorhorne) that is a taile which lieth off a good wayes, and which you might at unawares ſayl within in 7 fathom comming from the weſtward. This Till lieth in alſo (like as the other) firſt eaſtſoutheaſt, but a little further in more eaſterly. Here alſo you may take the founding of which ſide or ſhoare that you will.

Being come within, you ſhall get ſmoot water of the ſands for all winds. In this channell is not leſſe then 7 fathom water.

Hondtbalgh. The Houndtbalgh lyeth right into the weſtwards off the Steep-buye or Schorhorn. If you will goe in there with ſmall ſhipps for to faile over the Watt into the Weſer, then goe (when you have the Steep-buye) in ſouthſoutheaſt. The Hondtbalgh is without indifferent wide, keepe that courſe, untill you come thwart of the beakons, which you muſt leave on the ſtarboard ſide, you may well found in about the off-ſide of the Schor-horne, but not the weſt ſide, by it lye plates, which you might fayle foule of in 9 fathom, in comming in, but on the Schor-horne you can not doe amiſſe.

Holy land.

The Iland Holyland, and the outermoſt buye in the Wefer, lye one from the other, ſouth ſomewhat weſterly, and north ſomewhat eaſterly. When it is cleare and good ſight, you may ſee Holyland, when you lye in the Weſer, by the buye upon the head. Holyland and Bornriffe lye one from the other ſoutheweſt and by weſt, and northeaſt and by eaſt according to the common opinion, two and thirty leagues. When you come from the weſtwards, and begin to get Holyland in ſight, ſhe-wet-hit ſelve with a high reddiſh ſteep point, which is flat above. For to anckor or make rode under Holyland, coming from the weſtwards, then runne to that land in tenne or twelve fathom. When you faile towards the ſouth point, and come ſomewhat near the land, you ſhall eſpie a rock, like unto a ſmall towre, cloſe by the high land, called the Monck, which is almoſt ſo high as the high land. About ſouthſoutheaſt an Engliſh mile, or a little more from that rock, lyeth a rock under water. If you keepe your felf in eight and nine fathom, then you run without this rock, and can not take any hurt of it: When the Monck is covered of the other land, then you are thwart of this ſuncken rock. When the foresaid Monck cometh a handſpikes length, paſt or without the other land, there is the road; and good anckoring in ten or eleven fathom, the ground is there faire and cleane, except it be of wracks of loſt ſhips, or loſt anckors, which are there may. Lying there in nine, tenne or eleven fathom, you have ſhelter for a weſtſouthweſt, northweſt and north windes. From the poynt where the Monck ſtandeth by, ſhooteth off a little riffe from the ſhoare, which men may found in three fathom, you may alſo runne in five fathom from the ſhoare, and fayle cleare of the foresaid ſuncken rock, to wit, through betwixt the ſuncken Rock, and the little riffe. But if you runne into deep water, to wit, in ſeven fathom, you ſhall runne right upon the ſuncken Rock. In eight or nine fathom you doe runne about without the ſuncken Rock.

Monck.

Rock under water.

From the north ſide of Holyland lieth off an evill Riffe, almoſt a league into ſea, ſo that you can not come no nearer the whole north ſide, then in nine or then fathom. If you will goe about to the northwards of Holyland, being come ſo farre that the eaſt end of Holyland come to be ſouth and ſouth and by eaſt from you, faile then freely unto the Scholvers point, that is a flatte point, which you may found in 5, 6, and 7 fathom. If ſo be that you will runne in eight fathom off from it, you ſhall runne above two great leagues from the ſhoare. The right fareway betwixt the Hever and Holyland is not more then nine or tenne fathom deepe. When you come about the poynt to the rode, and that Scholvers point lye northeaſt, and the rock ſoutheweſt from you, there is good lying in 7 fathom.

Scholvers point.

South-haven. Scholvers point is the point where the South Haven lyeth within, which lyeth from the high land about eaſt into Sea. From the outermoſt end of Scholvers point lieth a banck off three fathom, unto the point where the Monck alſo ſtandeth, within it is very good lying for ſhipps of little draught, that is called the South Haven of Holyland. A Southſouthweſt and northnortheaſt moone maketh there the higheſt water.

Of the Elve.

The Rode of Holyland, and the outermoſt buye of the Elve (called the Schortunne or the Steep-buye) lye right Southeaſt and by eaſt and northweſt and by weſt eight leagues aſunder, which lieth right to the northwards of the Schorhorn, that is the outermoſt point of the New-workes grounds, on the ſouth ſide of the Elve, the right deepe of the Elve runneth in alongſt to the northwards of it. On the north ſide of the Elve lie the North ground, which lie ſomewhat flat far off to Sea-wardes upon the northweſt ſide. The South end of the north-grounds, called Voghelſand, runneth from the foresaid buye a good waies weſt and by north into Sea, with narrow taile off perfect harde ſand, about a halfe league broad, which waxeth by little and little the farther from the ſhoare the deeper. Three leagues from the foresaid buye, there is upon it eleven fathom water, when you faile on north from the ſteep-buye, you runne over it in three fathom, or three fathom and a halfe, but it doth ſoone deepe againe in five, ſeven, eight and tenne fathom, ſoft ground, that is in the creeke off the North Elve. To the Southwards of that a foresaid Voghel-ſand, in the right fareway of the Elve (for him that commeth from the weſtwards) it is alſo ſomewhat ſoft ground, and fourteene and thirteene fathom deepe, to the ſouthwards of it, towards the ſouther or Steepe grounds, the ground is againe very hard, and the grounds very ſteep, you may not come nearer them (eſpecially by night or darke wether) then in eleven or twelve fathom, if you come nearer to them, you might faile foule of the weſter Till, or Souther-broad-balgh, which runneth up to the ſouthwards into the grounds to nothing.

Mide of Voghel-land.

Northerne Elve.

When you come from the weſtwards, and faile to the Elve, you ſhall finde betwixt Holyland and the Weſer, and thereabouts ſomewhat to the eaſtwards, depth of twenty fathom, untill that you come well halfe wayes to Holyland, towards the Steenbuye, then it doth begin to ſhowld from eighteen to ſixteen and fourteen fathom, cloſe by the Steepbuye it is 12 fathom deep.

If you come by night alongſt by the ſteepe or ſouther-grounds, with a ſoutherly winde in twelve or thirteen fathom, and goe on eaſt and by north, you ſhall at laſt meet with the ſholding of the New-workes-grounds, right to the northwards of the Hondtbalgh in eight and ſeven fathom, there you muſt then let fall your anckor, for to ſtay for the day, and you ſhall finde your ſelf not farre from the buye. With northerly windes you muſt anckor further from the ſouth ſhoar in the foresayd ſhowlding in eleven or 12 fathom.

To the northwards of the foresaid narrow taile, or ſhowlding, which lieth off from Vogelland, runneth in a great bight or Slenck into the norther grounds, called the Norther Elve, it is in the going in ſomewhat within, ſo broad that you may there in turne to windewards, but within it runneth narrow and ſharp too, and at laſt to nothing, (ending allmoſt againſt the whitebuye, which lieth upon the Elve, upon the taile of the New-grounds) it is going in more then halfe wayes thirteen and twelve fathome deepe, and ſoft ground, verie much like the right Elve. It happeneth oftentimes by darke wether that the ſhippes (thinking that they are entred into the right Elve) runne in there, ſometimes which danger, eſpecially with weſt-northweſt windes, for they muſt come out there back againe. When you faile of from Holyland on eaſtſoutheaſt, you ſhall have depth of twelve or thirteene fathom, being a league off from it, that you leeſe the white cliffe out of your ſight, then you ſhall get one eve depth off thirteen fathom, and ſoft ground, all alongſt untill you come within the foresaid north Elve. When you ſhall perceive that you are entret in there, you may (when the New-werke is more ſoutherly then ſouth-eaſt and by ſouth from you) run alongſt over the taile of Vogelſand in 5 fathom, and ſo come againſt the Steep-buye upon the right Elve.

Norther Elve.

For to ſet ſayle by night from the road of Holyland, the courſe is ſoutheaſt and by eaſt, then you ſhall run over the foresaid taile of Vogelſand in ſeven and eight fathom, and ſomewhat hard ſandy ground. If you then run a little more ſoutherly, you ſhall get againe twelve and thirteene fathom, and ſomewhat ſoft ground, that the right deep or channell of the Elve betwixt Vogelſand and the ſteep-grounds. If you runne then more ſoutherly, you ſhall get againe ſomewhat hard ground of the Souther grounds, which are (as hath beene here before ſaid) very ſteep and hard, when you come neare them in twelve or eleven fathom, you muſt edge off againe from them unto twelve or thirteene fathom, and alongſt by them towards the ſteepe-buye, unto the foresaid ſhowlding of the New-workes grounds, and there ſtay for the day light.

When you come by day from Holy-land or from the weſtwards, and that you get New-worke in ſight of you bring that and the Cape one in tho other, and ſayle ſo right in with them, then you ſhall finde the ſteepe-buye, which lyeth (as hath beene already ſayd) towards the ſouth land on the ſide of the Schorhorne the outermoſt poynte of the

New-grounds in ten or eleven fathom. From the Steep-buye to the Kool-buye, that is, the second buye, the course is due east, which lyeth in eight fathom. Upon the New-work stand three country mens houses, the middlemost of them, and the steeple of the New-worke come one in the other when you come to the second buye. The third buy lieth in six fathom, from the Kool-buye east and by north some what easterly, but neareſt east and by north The fourth lieth in five fathom from the third, east and by north. Betwixt theſe buyes a little within the third, runs a deepe Creeke east southeast into the New workes-grounds, called the Kinder-balgh, which is wide at the entring in. and at half flood well nine fathom deepe, but runneth at length altogether drye to noting. Hee that cometh running alongſt by the south-grounds, might lightly get in there, therefore the third buye lyeth a little further off from the South ſhoare, becauſe men ſhould avoyd that Creeke. Betwixt the third and fourth buy on the north ſide of the deep lyeth a white buye in three fathom, upon the tayle of the New-ground. Neu-ground, which men might faile within, when they come inwardes, that you muſt leave on larboard ſide, and all the black buyes on the ſtarboard ſide.

The foreſayd white buye and the New-worke lye northnortheaſt and ſouthſouthweſt one from the other, to the eaſtwards of it the north ſide is very ſteepe. The fifth buye lieth in three fathom and a halfe, or 4 fathom, and lieth from the fourth due eaſt.

The ſixth buye, that is the poynt buy, lieth in ſix fathom, from the fourth and fifth due eaſt. In the right deep to the northwards of theſe foreſayd black-buyes from the Koolbuy to the poynt buye in the right fareway, it is all alongſt ſixe and ſeven fathom deep. From the poynt buye to the buye in the Roſſe, the courſe is ſoutheaſt which lieth in 7 or 8 fathom, when the Ros beakon commeth to the little ſteeple of Gron or Groen, then you are thwart of this buye. Halfe wayes betwixt the point buye, and the buye in the Roſſe, lieth yet another buye on the ſouth ſide, which is there betwixt them both exceeding ſteepe and needle too. Right eaſt ſoutheaſt from the point buye over againſt the buye in the Roſſe, ſomewhat further in wards, lieth a white buye upon the tayle of Romaerl plate, which men might at unawares fayle within, in foure or five fathom when they faile upwards. When the little ſharpe ſteeple of Woord commeth to the weſtwards of Oldenbrock (that is a church with two ſpires upon one ſteeple) then they are ſouth from you, from thence inwards you may ſound Romaerl plate in ſix fathom without, danger, otherwiſe it is on the off-ſide very ſteepe. From the Rosbeakon to Brunsbuttell are five leagues, betwixt the buye in the Roſſe, and the buye upon Romaerl plate begins a ſand ly ingright in the middeſt alongſt the fare way about two leagues long, called Pilgroms-ſand, upon it is alongſt no more then two fathom water, or a little more, upon it lie three black buyes, and over againſt it on the north ſide, two white buyes, you muſt faile through betwixt them, alongſt to the northwards of that ſand, being paſt it, you ſhall come upon the flat. There lye yet two buyes which you muſt leave alſo on the ſtarboard ſide in fayling up, before you come to Brunsbuttell. All the depths here before mentioned, are reckoned at halfe flood,

From Brunsbuttell to the buye upon Salthorne, or Friburger-ſand, the courſe is eaſt, and eaſt and by north alongſt by the north-land. From Salts-horne to the buy againg the Steur eaſt and by ſouth, and eaſt ſoutheaſt, from the Steur to the buye upon Gringer-oorts-ſand ſoutheaſt, and ſoutheaſt and by eaſt, that lieth againſt Bilenburg more then halfe wayes in the deepe. Betwixt this buye and the buye upon the Steur lieth another buye in the fare-way. From the buye of Ghringer-oort to the buye upon Stader-ſand ſoutheaſt and by ſouth, and ſouthſoutheaſt. This buye you muſt leave on the ſtarboard ſide. From Stader-ſand to Willems-ſtit, or the buye upon the Luye it is ſoutheaſt, and ſoutheaſt and by ſouth and from thence to the buye upon Terloo eaſtſoutheaſt. From thence to the buye upon Hanneball, the courſe is eaſt and weſt. From Hannebal to the buye upon Blanckenes ſand eaſt and by north, you muſt keepe that buye right with a great tree, and then run alongſt by the north land untill you bee paſt the buye.

From Blanckneſſe ſand unto the buye in the bight, the courſe is eaſt ſoutheaſt, and from thence unto the Eckhout eaſt and by north in the right channell it is there three or 4 fathom deepe, there lye the great ſhips for to lade ant unlade.

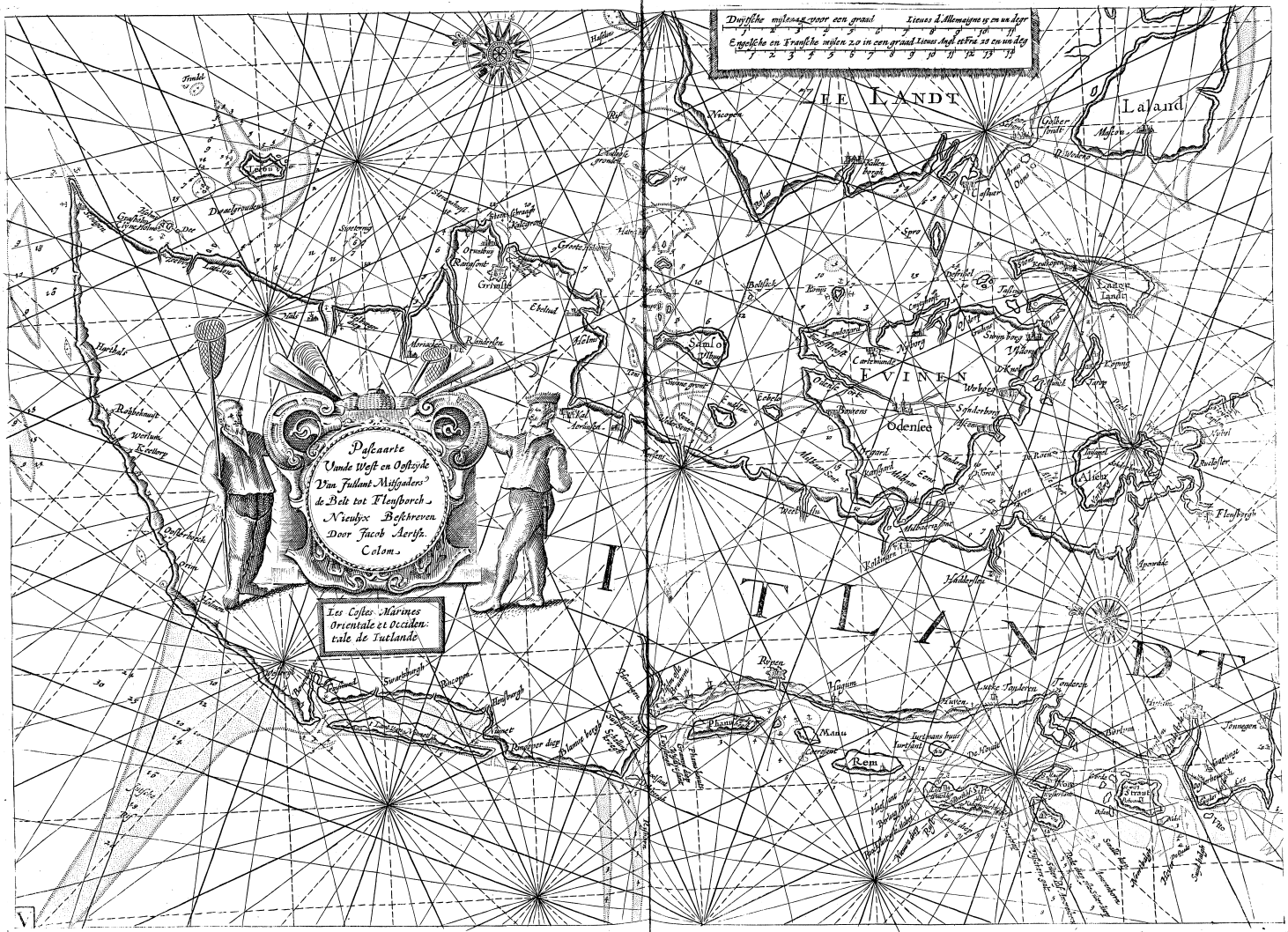
The Eyder.

Six leagues to the northwards of the Elve lyeth the Eyder, with manyſhowlds lying farre out without the land, chiefely and moſt on the ſout ſide, on the north ſide of the deepe alongſt by the land of Eyderſtee liet a long ſand called the Broad-back, or New-grounds, on the ſouth ſide lye Blavoort, the Iron Hendrick, the Hound of Hechſand. To the ſouthwards of Blavoort, and the Iron Hendrick, about a league to the ſouthwards of the mouth of the Eyder, goeth yet a Deep in, called the North pipe, where men may fayle in, and come out againe by the Hound upon the Eyder. In this Eyder lye on the ſouth ſide of the Deep ſeveu black buyes, which you muſt leave all (in fayling in) on the ſtarboardſide, and on the north ſhoare, which you muſt leave on the laiboard ſide. The outermoſt buye lieth from the ſteepe buye right north, and from Holy land eaſt or a little more noortherly 7 or 8 leag. When you fall with the land with that courſe you ſhal eſpy to the nortwards of te Eyder, upon the land of Eyderſtee, a ſharpe ſteeple indifferent high, called Gardingen, bring that over or to the ſouth ſide of the little ſand-hils lying on the north ſide of the Eyder, called the Souther-Heads, they ſhall then ſtand from you northeaſt and by north, or a little more eaſterly, fayl right in with hem ſo, and you ſhall fall with the outermoſt buye, when that then the ſharpe ſteeple of Weſlinburen, ſtanding to the ſouthwards of the Eyder in the land of Ditmarſen commeth to be eaſt or a little more ſoutherly from you, then you have the lenght off the fore ſaid buye, and then S. Peters Church upon the Eiderſtee to the weſt wards of Gardingen, not farre from the ſea ſide, ſhall ſtand from the northnortheaſt. Thus, or comming out of the ſouthweſt upon the fore ſaid markes of Gardingen, and the Souther-heads, you ſhal run over the ſhowld of Blavoort, which men do call alſo the taile of the Hound, lying off from Blavoort almoſt halfe waies to Holyland. It is alſo by ſome called Blavoort, or comming from the northwards, bring the foreſaid ſteeple of Weſlinburen aeſt or a little more ſoutherly from you, and faile ſo right in untill that Gardingen commeth to the foreſaid ſouther-heads, or that S. Petres church bee N. N. E. from you, in doing ſo you ſhall not miſſe alſo the outermoſt buye. From the outer moſt buy to the ſecond, thitd and fourth, it is al one courſe E. S. E. the ſecond lieth upon the ſhowldeſt of the channell at low water in 16 foot, the third in foure fathom, and the fourth in five fathom.

Theſe three laſt lie alongſt the north ſide of Blavoott, on the ſouth ſide of the deepe. In fayling in, you muſt leave them all on the ſtarboard ſide, and runne alongſt to the northwards of them. From the fourth to the fifth, that is, te buye upon the Houndt, the courſe is eaſt, which lieth thwart of the Hound, on a point which lieth of from Heckeſand, which in comming in, men might at unawares faile within alongſt to the ſouthwards of the buye, therefore you muſt leave that alſo (as well as the former) on the ſtarboard ſide, and faile alongſt to the northwards of it. Betwixt this foreſaid buye upon the Hound, and the fourth, lieth another buye upon the north ſide of the deep, upon the ſouthermoſt point of the New-grounds, which you muſt leave on the larboard ſide, and run about to the ſouthwards of it. From the buie upon the Hound to the ſixth, the courſe is northnortheaſt, two fathom deep. From the ſixth to the ſeventh and laſt buie northeaſt and by north, and the deepe alongſt to the northwards of it three fathom. Being paſt the laſt buye, follow the beakons, which ſtand alongſt on the north ſhoare, until you come to Hulck, runne cloſe alongſt to the ſouthwards or to the eaſtwards of them, for to avoid a taile of ſand, which commeth off from the eaſt ſhore, which men might unawares faile within into a Dead-creeke, From the Hulck to Schulperzile, the courſe is eaſtſoutheaſt. In that reach, the beakons ſtand on the ſouth ſide upon the Ballaſt-plate, and you muſt run alongſt to the northwards by them, leaving them on the larboard ſide. From Schulperzile to Tonningen the courſe is northnortheaſt. Before Tonningen the Eider is at the ſhowldeſt, and at low water no deeper then one fathom and a halfe. From thence further in towards the New-town called Frederickſtadt, there is depth enough.

The depths here before mentioned are al to bee underſtood at low water. From Tonningen towards Wollerſum, the Eider lieth alongſt northeaſt and by eaſt. From wollerſum towards Harebleck N. N. weſt. From Harebleck towards Reimers-bode northeaſt. From Reimers-bode towards Nienzile eaſtſoutheaſt. From Nienzile to the Nien-veere ſouth.

Betwixt the fourth buie upon the Eider and the fifth, that is, the buie upon the Hound, over againſt the buie upon the ſouthermoſt point of the New-grounds, ſtand two beakons a little to the ſouthwards of the foreſaid two buies, the weſtermoſt upon the eaſt point of the Blavoort, or the Iron Hendrick, and the eaſtermoſt upon the taile of the Hound. Betwixt theſe two beakons goeth in through a deepe ſoutheaſt, or ſoutheaſt and by eaſt, where you may faile through alongſt


Duytsche mijlen 25 voor een graad
Lieues d'Allemaigne 15 en un degr
Engelsche en Fransche mijlen 20 in een graad
Lieues Angl. extra 20 en un deg
Pascaarte
Vande West en Oostzijde
Van Jutlant Mitsgaders
de Belt tot Vlensborch
Nieulyx Beschreven
Door Jacob Aertsz.
Colom.
Les Costes Marines
Orientale et Occiden:
tale de Jutlande
LE LANDT
Laland
Langeland
Fyen
Odensee
Alsen
Flensborgh
Rem
Ribe
Tondern
Hadersleben
Apenrade
Sundewitt
Ringenes
Hoyerswort
Bommerer diep
Schlye
Schleswyck
Eckelnt
Aschlum
Rendsborch
Gluckstadt
Crempe
Reitzhoeft
Wetlinge
Kerberg
Dorpstede
Hamborch
Lubeck
Lauenburch
Ratzeburch
Mollen
Ritzebuttel
Stade
Buxtehude
Bremen
Verden
Hoya
Nienburch
Minden
Hannover
Hildesheim
Brunswyck
Wolfenbuttel
Halberstat
Magdeburch
Aschersleben
Bernburch
Cothen
Zerbst
Wittenberch
Dessaw
Roslau
Coswich
Wittenberg
Torgau
Leipsigh
Eylenburch
Delitzsch
Merseburch
Naumburch
Weissenfels
Zeitz
Altenburch
Chemnitz
Freyberch
Dresden
Meissen
Budissin
Lignitz
Glogaw
Sagan
Crossen
Francfort
Custrin
Landsberch
Berlin
Spandow
Brandenburch
Havelberch
Perleberch
Ruppin
Oranienburch
Potsdam
Wittenberge
Lenzen
Dannenberch
Lunenburch
Ulsen
Celle
Winsen
Harburch
Stade
Buxtehude
Ritzebuttel
Cuxhaven
Neuwerck
Tessenderf
Husum
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Hadersleben
Apenrade
Flensborgh
Alsen
Fyen
Odensee
Langeland
Laland
Fehmeren
Femeren
Gedser
Stege
Bogense
Nyborg
Svendborg
Assens
Middelfart
Aarhuus
Randers
Aalborg
Wiborg
Viborg
Ringkiøbing
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Hadersleben
Apenrade
Sundewitt
Ringenes
Hoyerswort
Bommerer diep
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Randers
Aalborg
Wiborg
Viborg
Ringkiøbing

alongſt by the beakons upon the Iron Hendrick (which you muſt leave then on the ſtarboard ſide) untill you come into the end of the North-pipe, which liet from thence aubout Weſt into ſea. You may found in at the North-pipe, comming in out of the ſea by the S. ſhoare in 3 and foure fathom, untill you come to the foreſaid beacons, and then about by them north-weſt, or ſomewhat more weſterly up unto the Eyder, or elſe you may runne further alongſt by the foreſaid ſouth ſhore, untill you come about the beakon upon Hoedmeerſand, and then forth betwixt the land Bulheads and Bayſen alongſt by the Beacons upon Hoedmerſand, with many points and bights on to the ſouthwards, and come out at laſt upon the Old Elve, about northeaſt from the New-work againſt the Newgrounds, which is not well to bee failed, but of thoſe that are there very well acquainted.

Alongſt by the northſhoare of the Eyder, cloſe to the ſouthwards of the little ſand-hils, the ſoutherheads, runneth in yet a Land-deepe, eaſt and eaſt and by north in, and commeth out againe upon the Eider by the Hulck, that ſerveth not but onely for ſmall ſhips, there remaineth at low water but five foot.

Of the Tydes and Courſes of the ſtreames.

Before the Scholbalgh, the Lawers and the Schille, and before the Weſter-Ems a ſoutheaſt and northweſt moone maketh high water.

Before ſimbden and Delfzyle a north or north and by eaſt and ſouth or ſouth and by weſt moone.

In the Eaſter-eems and Burckumbalgh a ſouthſoutheaſt and northnorthweſt moone.

Before the channelle betwixt the Eaſter-eems and the Weſer, a ſouth and ſouth and by eaſt, and nort and north and by weſt moone.

In the fareway betwixt the Ile and the Elve, the foreflood commeth out of the north ſea, and runneth about by little and little with the ſunne, falling the halfe tyde eaſtnortheaſt alongſt the ſhoare, and the ebbe weſtſouthweſt.

Before the Weſer and Elve, and alſo in the Eyder a ſouth and north moone maketh high water. The flood commeth there out of the northweſt, and the ebbe out of the ſoutheaſt, and fall very ſtrong over the grounds that lye out there.

Under Holyland a north northeaſt and ſouth ſouthweſt moone maketh full Sea.

Of the Depths about theſe places, and in wath depths men may ſee the land.

Schiermonickoogh men may ſee in 12 and 13 fathom 4 great leagues without the land.

Rotrum and Borckum men may ſee in 14 and 15 fathom.

Thwart of borckum the ground is groſſe red ſand, mingled with ſome black.

Iuyſt, men may ſee in 13 and 14 fathom, 3 leagues without the land it is 12 fathom deep.

Buys and Norderney men may ſee from the poop in 12 and 13 fathom.

Baltrum Langeroogh and Wrangeroog, men may ſee it in 14 & 15 fathom.

Thwart of Bojadigerland, Kedingerland and Dimarſen, the grounds lye into the top.

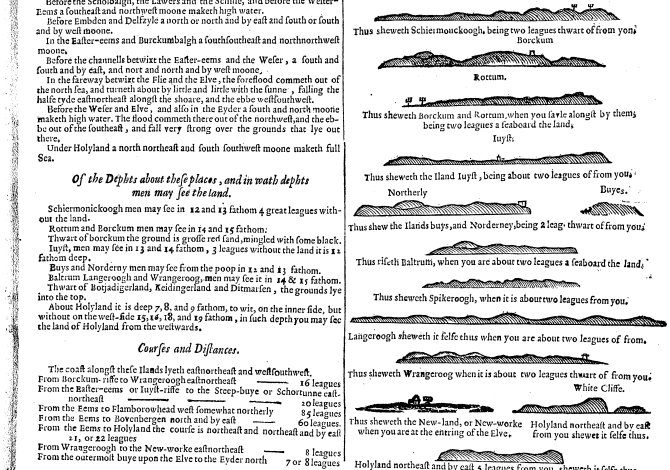
About Holyland it is deep 7, 8, and 9 fathom, to wit, on the inner ſide, but without on the weſt-ſide 15, 16, 18, and 19 fathom, in ſuch depth you may ſee the land of Holyland from the weſtwards.

Courſes and Diſtances.

The coaſt alongſt theſe Ilands lyeth eaſtnortheaſt and weſtſouthweſt.

From Borckum-riffe to Wrangeroogh eaſtnortheaſt —— 16 leagues
From the Eaſter-eems or Iuyſt-riffe to the Steep-buye or Schortunne eaſtnortheaſt —— —— 16 leagues
From the Eems to Flamborowhead weſt ſomewhat northerly 85 leagues
From the Eems to Bovenbergen north and by eaſt —— 60 leagues.
From the Eems to Holyland the courſe is northeaſt and northeaſt and by eaſt 21, or 22 leagues
From Wrangeroogh to the New-worke eaſtnortheaſt —— 8 leagues
From the outermoſt buye upon the Elve to the Eyder north 7 or 8 leagues
From Langeroogh to Holyland, northnortheaſt —— 16 leagues
Holyland and the outermoſt buye in the weſer lye north ſomewhat eaſterly, and ſouth ſomewhat weſterly. The buy upon the Head in the Weſer, and Holyland lye north and ſouth aſunder —— —— 8 leagues
The Steep-buye on the New-work and Holyland lye ſoutheaſt and by eaſt and northweſt and by weſt aſunder. —— —— —— 8 leagues
The outermoſt buy in the Eyder and Holy-land, lye eaſt ſomewhat northerly northerly, and weſt ſomewhat ſoutherly aſunder 7 or 8 leagues
From Holy-land to the Holms before Yarmouth, the courſe is weſtſouthweſt or ſomewhat more weſterly —— —— 72 leagues
From Holyland to the Scarbrough and Flambrough head, weſt or ſomewhat more ſoutherly —— —— 93 leagues
From Holyland to Tinmouth, or Newcaſtle, weſt ſomewhat more northerly —— —— —— 136 leagues
From Holyland to Lie in Schotland, and by north and ſomewhat more northerly —— —— —— 120 leagues
From Holyland to Boeckness northweſt and by weſt 120 or 121 leagues
From Holyland to Hanglip in Hirland northweſt —— 146 leagues
From Holyland to Bovenbergen, north and by weſt —— 50 leagues
From Holyland to the Horne, or Dodebergh, north 32 leagues
From Holyland to Knuyts-deep, or Ryper-deep, the courſe is north and north and by eaſt —— —— 25 leagues
From Holyland to the Deepe of Silt, or Liſt, north and by eaſt 15 leagues
From Holyland to Ameren, or Small-deep, the courſe is northnortheaſt ſomewhite eaſterly —— —— 10 leagues
From Holyland to the outermoll buye in the Hever, northeaſt 8 leagues
When you lye by the outermoſt buy in the Hever, in clear water you may ſee Holyland.

How theſe Lands doe ſhew themſelves at ſea.



The third demonſtration,

In which are deciphered the ſea coaſts off the weſt and eaſt ſide of Jutland together which the Belt untill you are paſt Laland and Langeland.

FRom the New-worke, or Steepe-buye to the Hever, the courſe is north tenne leagues, when you come about halfe wayes betwixt them both, you ſhall meet with the foreſaid ſand or taile off Blavoort in the depth of two or three fathom. In this fare-way you muſt be very carefull of your tydes, that you come not upon the grounds, which lie far out a ſeaboard the Land, the foreflood falleth there very ſtrong thwart over the grounds towards the land, and the ebbe to contrary.

For to ſaile from Holiland to the Hever, goe on northeaſt ſomewhat eaſterly, or according as the winde and tide ſhall be, and runne towards the grounds, untill you come in fix or ſeven fathom, and then you ſhall eſpie a ſteeple which is ſharpe, and indifferent high, called Piel-worme, bring that northeaſt and by north from you, a malts length to the ſouthwards off the ſoutermoſt Cow-houſe, upon the little iland Nuball, keepe that ſo ſtanding, and ſaile towards it, and you ſhall ſo finde the outermoſt buye, from that to the ſecond buy, goe on northeaſt, and northeaſt and by eaſt, being come toit, Piel-worme ſteepſe ſhall ſtand northnortheaſt from you. From the ſecond buye alongſt inwards, the courſe is northeaſt and by eaſt. Being come in ſo a good wayes, you ſhall finde two beakons on the ſtarboard ſide, upon a dry ſand, called the Quade, there over againſt commeth the northbalgh in the right Hever. From the firſt beakon to the ſecond and third, the courſe is eaſt and by north, ſaile all alongſt by the beakons, leaving them the ſtarboardſide. To the northwards of them betwixt the firſt and third beakon, it is full of ſands and plates, where you might at unawares ſaile within. By the third beakon cometh the ſouther Balgh into the Hever. From that third beakon to the two other beakons the courſe is northeaſt and by eaſt, being paſt that you ſhall come by the greene land on the ſtarboard ſide, there it is afquare deepe, large and broad channell, from thence you may ſaile alongſt amidſt the channell unto Hoeſen at the bridge, or anckor there abouts every where, where you will.

Without in the Hever the north ſide is ſteepe, therefore

keepe the south side until you come within the beakons, in the channell is at halfe floud two fathom and a halfe water, and without the channell it is very farre flat. Somewhat without the Hever lyeth also a banck, whereof men muſt bee carefull when they will fayle in there. A south and north Moone maketh there the higheſt water.

The South-balgh goeth in to the southwards of the foreſaid bank the Quade, in right with the litle iland Utto, and alongſt to faile to Utto. From Utto it lyeth in alongſt northeaſt and by North, and commeth out into the Hever by the third Beakon.

The North-balgh lieth in to the northwards off the Hever about eaſt and by north, or weſt and by ſouth from Piel-worme, right in with the foreſaid little iland Nubull, which you muſt leave on the larboard ſide running in along by it, and ſo come into the Hever, againſt the foreſaid dry ſand, the Quade: you may alſo (comming in at the North-Balgh) fayle up to the northwards from the Iland Nubull unto the end of Strand, till you come thwart off a flat Church, and anckor there behinde the ſhowlds, that is a deepe Balgh or Creek.

Smalle deepe.

Three or foure leagues to the northwards off the Hever, lieth the Smalle deep. For to faile of from Holy-land toward it goe on northeaſt and by north, and runne to the grounds, about weſt and by north, from the Pielworme the ſouth end off Ameren ſhall then bee north or thereabouts from you. Seek then to the ſouth grounds, and ſound about by them, and there you can not doe amiſſe, it is flat riſing ground farre without the land. On the north ſide lye many ſands, ſhowlds, and points, that lie out, which men might (without good heed-taking) faile within: faile in therefore alongſt by the ſouth ſide north and by eaſt, northnortheaſt, and northeaſt and by north, and ſo you ſhall find one ſhowld or breach, leave that on the larboard ſide. If you leave that on the ſtarboard ſide, you ſhowld runne into a dead Balgh or creek, wherein is at the firſt at leaſt 7 fathom depth, but runneth at laſt by little and little to nothing: you may alſo runne alongſt by that foreſaid ſhowld by your lead, untill you come within it, comming then thwart off the ſouth end of Ameren, you might unawares faile within the ſouth grounds behinde a ſhore which ſhooteth of from the grounds of Vooren, therefore keepe the ſouth ſide untill that you come thwart of the Iland Vooren.

The Red-deepe.

For to ſaile in at the Red or Silter-deepe, comming from the northwards, or out of the Sea, runne in ſight off the iland Ameren. About the middeſt of Ameren lieth a white round hil, a little higher then the other hommocks in a low plaine valley. Bring that northeaſt from you, and run in ſo right with it, untill you come within the riffe that ſhooteth off from the Voortrap, and commonly is called Ameren Borne, and ſo you can not take any hurt of it, and then you ſhall have upon the point of the Riffe not leſſe then three fathom water, and within the ſame riffe eleven, twelve, or thirteene fathom. Saile ſo in untill that the north end of Ameren be north and by eaſt from you, and then run right with the north end of Ameren, untill you come within the dry ſand, and there you may ankor where you pleaſe, or faile ſo farre in as you will, and ſound it al alongſt by the Riffe. The ſtrand of Ameren is a faire Strand without any tailes that men might faile within. When the foreſaid hill upon Ameren is eaſtnortheaſt from you, and faile ſo right with it then you run to neare the foreſaid Riffe off Silt, the hill is then alſo in two parts, the northermoſt is the ſmalleſt.

Ameren-burne.

For to ſaile in at the Red deepe, or Silter-deepe, comming of from Holyland, and that you have gotten ſight of the land, then bring the north end of Ameren north and by eaſt from you untill that you be come in betwixt Ameren, and the Riffe off Silt, runne then in alongſt by the Strand of Ameren, untill you come about the north point of Ameren and ſo along to the eaſt wards, untill that Ameren lie ſouth and ſouthſouthweſt from you. You may not faile into this channell further to the eaſtwards, for then you come againſt the Iland off Vooren, but you may faile to the northwards alongſt betwixt Vooren and Silt, till you come before Lit. In Silter-deepe is upon the ſhowldeſt three fathom water, being over it, there is againe eight, nenne, and twelve fathom, there lye two riffes, or bad ſand, the one about weſtſouthweſt from Ameren, dry above water, that is, very farre flat, to wit, in three, foure, or five fathom, it is called of the Juthes the Borne, or Ameren-Borne, although that it be not faſt to Ameren, for the Red-deep goeth in betwixt them both. It is not alſo faſt unto the Voortrapts, or that ſouth end off Silt, altough it commeth ſhooting off from it, betwixt them goeth out into Sea a deepe of about a fathom & a halfe, where the ſiſher men doe dayly goe out through for to fiſh, eſpecially thoſe of the Iland Vooren, this the outermoſt ſand that lieth on this coaſt. They that uſe this coaſt much, either for Rypen, or the quarters thereabouts are very much afraid for this Ameren-Borne, when they come from Holyland, they finde this ſhowld about weſtſouthweſt from Ameren.

The other ſand ſhooteth of from the ſouth end of Ameren, lying about ſouth, and ſouth and by weſt into Sea alongſt the Land, that is alſo called by many the Borne, or Ameren-Born. He that commet of from Holyland, & is bound to the northwards, need not feare ſo much for the ſhowld, for it ſhooteth out moſt by the land.

The Haven off Liſt.

About eight leagues to the northwards of Silter-deepe lieth the Haven of Liſt, which runneth in by the north end off the Iland Silt. For to faile in there, comming from the Southwards, runne ſo long to the northwards in ſix or ſeven fathom, that you may ſee a little Iland without the point (which lieth within theſe outer Ilands) upon which ſtandeth a houſe, called Jeurtmans houſe: when that houſe commeth a maſt length without the point off Liſt, then goe in eaſt and by ſouth, and eaſt ſoutheaſt, keepe thoſe markes ſo ſtanding untill that you be within the point of Liſt, edge then up to the ſouthwards about the point, and anckor before the Vuchts houſe, there it is nine and ten fathom deep. At the entring off the channell lieth a plate or ſand, called Haef-ſand, that you ſhall leave on the larboard ſide, when you come in, it is in the off-ſide very flat, and good for to found when you come from the northwards. For to avoyd that when you come from the northwards, edge of ſo far from the ſhore, that the red Cliffe come without the ſandhils, or that you may ſee it plainely: Then you may goe well over Haef-ſand, with a ſhip that is not of a very great draught Likewiſe when you come out at the channell off Liſt, and are bound to the northwards, faile ſo farre out that you may ſee the Cliffe, and then you may goe over the foreſaid ſand, which lieth from the ſouth end of Rem a good wayes into Sea. Haef-ſand

On the ſouth ſide off the channell off Liſt lye alſo two ſands or bancks alongſt the ſhoare not very farre without the ſtrand, the innermoſt or northermoſt is called Barling-ſand and the outermoſt, Ruſt, or Ruſting, that lieth to the ſouthwards almoſt thwart off the red Cliffe, betwixt theſe ſands, and the ſtrand of Liſt goeth in the Land deep. For to faile in there coming from the ſouthwards, you muſt ſeeck betimes to the ſtrand of Liſt about the red Cliffe, becauſe of the Ruſt which lieth off from the northend off Liſt a little without the ſtrand. When that you have the ſounding off the ſhore, and are come somwhat within that red cliff, there ſhall meet you a flat from the ſhore, which you muſt ſomewhat avoid, and then you may ſound very well: keep all alongſt the foot ſtrand, there you can take no hurt of it. From the Inner point off Liſt ſhooteth off alſo a little riffe, where of you muſt take heed. When that you are come within the Innermoſt point of Liſt, then you may anckor where you pleaſe. If you will goe to Lutke Touderen, then leave that ſand (which lieth to the Southwards off Jureland) on the ſtarboard ſide, and runne through betwixt them both. He that is bound to Hoefem or Silt over the Wad muſt leave that ſand on the larboard ſide. Upon Vooren ſtand two or the threes, theſe you muſt keepe over the weſtermoſt church or ſteeple, and run ſo alongſt into Vooren. Barling-ſand. Ruſt, or Ruſting.

Betwixt the Ruſt and Barling-ſand goeth a faire deep channell through called the New-deepe, right in alongſt to the ſouthwardes of Rock-ſand, that is a ſhowld which lieth to ſeawards off Ruſt and Barling-ſand. For to faile in at that New-deepe, bring the white cliffe upon Silt eaſt, and eaſt and by north from you and run in ſo right with it, and you ſhall fall right in the New-deepe betwixt theſe two banckes, leaving Roock-ſand or the Maber on the larboard ſide of you, run in ſo alongſt by Ruſt, but come alſo no neerer to it then in foure fathom, untill that you come into the Land-deep, but comming againſt the ſhoare, and getting ſhowlding of the ſtrand, run in alongſt by the foot-ſtrand on inwardes, as is rehearſed in the deſcription of the Land-deep. Rockſand.

Betwixt Haef-ſand, or Haes-ſand, and the Iland of Rem goeth in yet a little Land-deep of about a fathom and a halfe water. The Iland Rem is three leagues long, and very flat on the off-ſide, ſo that you ſhall ſcarce ſee that land in five or ſeven fathom.

About

banck of Silt.

About eight or nine leagues a ſeaboard of the Iland Silt lieth another banck a long the ſhoare of eight or nine fathom, and is about two leagues long, about ſo lang as the Iland is. Betwixt this banck and the Iland it is thirteene fathom deepe, being in nine fathom a ſe aboard the Iland Silt, then lieth Holyland about ſouth from you.

Knuyt deep, or Ryper-deep.

From the channell of Liſt to Knuyts or Ryper-deep the courſe is north and ſouth about 7. leagues, bur Ryper-deepe and Holyland lie north ſomewhat weſterly, and ſouth ſomewhat eaſterly one from the other for to faile into Knuyts or Ryper-deep coming from the ſouthwards, run about by the flat of Rem and Manu towards the ſouth ende of Phanu, called Souther head, or Souther-heigh and ſo you ſhall ſee two capes upon a drye ſand, ſome what to the ſouthwards of Souther-head, bring thoſe capes a little through one another, to wit the innermoſt or longſt a litle or a hanfpikes length to the northwards of the ſhorteſt or outermoſt, and then they ſhall ſtand eaſtnortheaſt from you, keep them ſo ſtanding, and faile right in with them, and ſo you ſhall finde the outermoſt buye, lying on the north ſhoare in foure fathom in the channell, called Old Ruper deepe, leave that buye on the larboard ſide, and then goe inwards eaſt and by north, eaſt, and eaſt and by ſouth into the ſecond buye, you muſt runne alſo about to the ſouthwards of it, for thwart of it commeth a ſhowld ſhooting off from the north ſhoare, from the outermoſt cape towardes the ſecond buye, which you muſt avoid.

Coerſand. Or keepe the founding of the ſouth ſhoare called Coerſand, and run by your lead firſt eaſt and by north, then eaſt, and at laſt eaſt and by ſouth in by it, you ſhall finde there upon the ſhowldeſt not leſſe then ten foot at low water, and common tyde; there within it is again 6, 7 and 8 fathom deepe. Being paſt the capes, then luffe up to the northwards, about the ſand where the capes ſtand upon, and anckor there where you pleaſe, there it is wide and broad, and alſo deep and ſteepe, ſo that there you can take no hurt. The Ryper ſhips that are bound out, doe lye there for to ſtay for a winde. Behinde the Iland Manu it is 6 and 7 fathom deepe, there alſo men may ride, from thence you may go up the deep to Rypen, but not up along to Rype with great ſhips, cloſe to Rypen the deep endeth, ſo that there is a ſhowld neck betwixt both, where there is no more then 6 foot depth. With ſmal ſhips you may alſo faile about be hind Rem towards Jurſand, there is a low water about 7 foot water.

Comming from the northwards for to faile into Riperdeepe, you ſhall at ſo runne on to the ſouth end of Phanu, untill that you ſhall eſpye the foreſaid capes, and doe then further as is above taught. This channel is not the beſt channel in foule weather, for it is narrow and farre off ſhould without it: but when you ſhall be entred into it, you may eaſily fee both ſides breack, if it blow any thing hard.

A ſouthſouthweſt and northnortheaſt moon maketh here the higheſt water.

The Grouve deepe.

About northeaſt, or northeaſt and by north from the north end of Phanu lieth a litle Hill, called Luysbergh: a little to the northwards of it lieth a long plaine ſand-hil, called Langeleg: from thence lieth the land towards Zuyder-zyt weſtnorthweſt and eaſtſoutheaſt.

Langeleg. Betwixt the north point of Phanu and Langeleg goeth in that Grouwe-deep. For te faile in there when you come from the ſouthwards, run alongſt the Iland Phanu, and about by the north end of it (which is farre flat.) When as that you get deeper water, you ſhall fee three or four hommocks about northeaſt from you, upon the high land with a little flat ſteeple, called Holm, or Bruinum Bring that little church a cables length to the northwards of the Hommocks, goe in then northeaſt, and keep the ſouth ſhore, until you come within that dry ſand, which ſhooteth off from Phanu, called Smeurſand, you may run to that upon your ſight without doing amiſſe, but leave that on the ſtarboard ſide when you come in. The ſhores are there abouts both of the very ſteepe, as wel Wiſdike, (that is the Plate which lieth in the channel) as alſo Smeurſand, but without the ſhoares are flat. When you are paſt the point of Smeurſand, edge then over to Wiſdike, and ankor there untill that you have the loweſt water, and then you may ſaile to Hartingen, and go on foot to Warde, or Woerdt, which lyeth eight or nine leagues within the land, the river is very crooken; upon the which here and there lyeth a Gentlemans houſe. Smeurſand. Warde.

A ſouthſouthweſt and northnortheaſt moon maketh there the higheſt water, and there it flouweth with a common tyde about a fathom up and down,

From Phanu to Schellingkroegh it is four leagues, betwixt them lieth Zuyder-zyt a little river of eight or nine foot water. The land betwixt Langelegh and Zuyder-zyt is ragged land with ſand-hilles, and rough, being grown with ſpirie graſſe, or heath. If you ſhould fall with the land at Zuyder-zyt, and that you could not lead it into the channell, then chooſe the land of Langelegh, you may run to it without danger, keepe in two fathom and a halfe, & you can not faile amiſſe of this kroeg: four you may found this land al alongſt in 2 fathom and an halfe off from Langelegh untill you come within Schelling-kroeg, but if you run in three fathom, or three fathom and a halve, you ſhall faile without the drie ſand, & run about a fea-board of the forenamed Kroegh, Schelling-kroeg lieth in moſt N. W. men lie there within, ſheltred for all winds, like as men doe lie at Coning ſborough in the Kettell. If ſo bee that you come from the northwards, and are bound into this Haven or Kroegh, you may run about by that drie ſand in three fathom, when you come by the innermoſt point of that drie ſand, there ſhooteth off a little taile of ſand, but you may ſee it weel, and keepe your ſelfe from it: When you come to the eaſt end of that ſand, luffe up about it, untill you come into that Kroegh, and anckor there in two fathom and a foot, it is there very wide, you may make there a good boart, and turne it in to windwards. A ſouthſouthweſt and northnortheaſt moone maketh there the higheſt water, the farther you come to the northwards to Iutland, the leſſe tide goeth, and the leſſe it flloweth up and downe. Schelling-kroeg. Suyderzyt

At the north end of the foreſaid drie ſand lieth the Doodenbergh, that is a ſhort bommock of a ſand-hill, which lieth alone. When you are ſomwhat off from it, then it lieth under the other land, that you can not ſee it, when you come from the ſouthwards or the northwards you may ſee it. From the Dodenbergh unto that ſouth end of the drie ſand, it is all alongſt a faire ſtrand, and flat ground. For to ride under the drie ſand, you may found about it comming from the northwards, and get ſmooth water for a northweſt wind, and alſo for weſterly windes.

A little to the northwards of the Dodenbergh lieth the pointe called the Horne betwixt Zeyderzijt and Weſterzijt making there a Horn of the land to the ſouthwards of it the Coaſt lieth eaſtſoutheaſt and weſtnorthweſt towardes the Growe-deepe: to the northwards of it north, and ſouth towardes Weſterzijd is a village lying betwixt the blawenbergh and the Horne.

About this pointe or Horne runneth off a long banck about twelve leagues weſtſouthweſt into ſea, called Reefs-horne, or as ſome do name it Devillhorne, which lieth at ſome places altogether drie, eſpecially feven or eight leagues from the ſhoare, where it is not deeper then two fathome and a halfe, or three fathom a foote leſſe. A ſhippe that fayleth upon it, men can but even ſee it from the land it is at the deepeſt by the land, to weete four fathome lacking a foot. He that commeth there from the northwards with a ſhip of a great draught, muſt take verie good heede, for it is upon, the northweſt ſide of ſteepe, that men ſhal have one caſte two and twentie, the next caſt fifteene, and the third caſt no more then three fathome. Reefs-horne.

When you fall with the land with weſterzijdt or to the northwards of Ree ſhorne, you may found alongſt by the ſhoar in fixe or ſeven fathom, untill you come neare the forefayde Horne: you ſhall then alſo finde another ſhowld Riffe, that runneth of from the land, called the Owle, which is alſo verie neth of from the land, called the Owle, which is alſo verie ſteepe on the north ſide: from the northwards you may not come nearer it, then in ſeven fathome. A little to the ſouthwardes of it begineth Reeffhorne to runne of from the ſhoare, it is there a narrowe banck, you ſhall not finde there leſſe then three fathome, or three fathome lacking a foot water, at two or three caſt, according as it ſhall blowe hard or ſoft, and that you ſhall make jour waie, and then you ſhall gette prefentli againe five fathome, and found it about by that ſhoulde ſand, whether you deſire to be. The Owl.

According to the opinion of ſome, Doggers-fand beginneth from this banck. When men ſette fayle earlie in the morning out of Rinkoppers deepe, with a ſouthweſt waye, and a good northeaſt winde then they are aboute four of the clock in the afternoone yet in nine fathome: whereby it ſhowld appeare, that Doggers Sand ſhowld have his beginning at this banck.

For to knowne the land hereabouts: A boute four leagues to the northwardes of the forefayd Horne lieth a high hill a little from the ſtrande, called the Blawenberh, going playn downe on both ſides, which is ſomewhat blacker then the

other,

other land, being grown with spyrie grasse, to the southwards of this Blawebergh lieth that fishers village Westerzijd betwixt that village and the Horne lieth one black hommock, and also a Gentlemans house, otherwise the land is altogether full of hommocks.

Rinkopper deepe.

To the northwards of the forefaid Blawenbergh lie three or four lowe white Sandhilles, and by the haven of Numen also two great white Sandhilles close one by the other. To the northwardes of these Sandhilles runneth in that Haven of Numen, the land lieth betwixt the Haven of Numen and the Doodenbergh, most south and north about seven leagues, all alongst a faire strand the best to beknowne of this coast, is the forefaid Blawebergh, and these two forefaid white Sandhilles.

Rinkopper deepe.

For to saile into Rinkopperdeep or the Haven of Numen runne alongst by the land of West-zyd, in five or seven fathome, untill that you come to the two forefaid great white Sandhilles, and then you shall see upon a lowne land two capes, upon each of them standeth a barrel: Bringe them one in the other, and then they shall stand north, or north and by east from you, saile in right with them, and you shall finde a buye, except it be laide somewhere els. Right before the haven of Numen lieth a Sandplate, named Gladde Iaep. For to saile into the souther channell, then leave that plate on the larboard side, and run in close by the southlhoare or foor strand (where the aforesayd white Sandhilles doe lye upon) right with the Capes, and there you can not doe amisse, but runne in boldly by it upon jour lead, that is the verie sureft waye of all to sayll in alongst by the strand, when men are care full of the lead.

Gladde Iaep.

Being past Gladde Iaep, runne then towards the north shoare, jou may sayle about by it fo close as you will, it is a lowe plaine poynte, al together cleane and verie steepe. When you are come within this poynt, you may anckor where you please. This channell lieth in most north and north and by east, until you come within Gladde Iaep, and then somewhat more eafterlie towards the forefayd poynt. In this channell goeth an indifferent strong tyde, becaufe there lieth fuch a great Sound within. It floweth there a litle up and downe, no more then two foot and a halfe, with a common tyde. A fouthwest and northeast Moone maketh there the highest Water. Right to the northwardes of Gladde Iaep runneth in another chanuell, but there is no more but eight foot water.

Further within the Haven of Numen it is Pilots water, but fhippes that are not of greate draught may well faile up, efpecially at a lowe water. The deepe runneth alongft by the ftrand of Numits, keeping alongft by it you can not doe amiffe: fo foone as you goe off from it, you fhall be in daunger to fayle within the fhares or tayles which lye off from the Wadt towardes the land of Numit, therefore runne clofe alongft by the forefaid ftrand of Numit fo long, untill that little church with a flatte fteeple (about eaft from you againft the high land of the Holme) come the fouth fide of the high land: then you are within the tayles and fands that lye out, leave then the ftrande, and goe in northnortheaft, and northeaft and by north, untill that a rounde hommock come clofe to the fouthwardes, or right over a little blew church upon the high land of the Holme. Goe then in alongft northeaft and by eaft untill that the forefayde little blewe church commeth over a Gentlemans houfe, beneath in the lowe land, clofe to the water. Sayle then on north, and by little and little north and by eaft, untill you come before Rinkoppen, it is there broade, large and wide, and the right deep two fathome and two foote.

Rinkoppen and the havens mouth of Numen lye foure leagues a funder one from the other.

To the northwardes of Rinkoppen goeth a little river into the land, upon which lye two little townes, feven or eight leagues in the land, the one named Hoftebro and the other Huyfbuy.

A halfe league to the fouthwards of Boevenbergen goeth in yet another little haven inwardes out of the fea, named Trofmoe, there ftand two maftes, you muft keepe them one in the other, and runne fo into it: there lieth a little village within called Trofmonde. From thence you may fayle over the Wadt to Rinkoppen.

This little haven is not to be reckoned for a Haven becaufe fometimes it is caft too, and fometimes there may goe in and out againe Boates or Crayers and fmall fhippes.

From Rinkopper Deepe or the Haven of Numen to Boevenbergen the land lieth moft north and fouth renne leagues, there is all alongft betwixt them both a faire ftrand with wite fandhilles, growne wit fpyrie graffe.

When you fayle alongft by it, you may fee the blewe double land of Rinkoppen, (called the Holmes) alongft over this land.

Betwixt Boevenbergen and the Reefhorne lie fome bancks of feven, eight and nine fathom, and alfo fome that are deeper.

Boevenbergen. Boevenbergen is a long fmooth hill, having in the middeft a high round hommock or hill, and upon that hill ftandeth a church with a fteeple: when you come thwards to land with Boevenbergen: it fheweth it felfe in three hilles, the middlemoft is the higheft, upon which ftandeth the forefaid church, with a flat fteeple: upon both fides of that hill ftand alfo other churches, but they are not fo high: you may fee the land in thirteene and fourteene fathome, the ground is groffe red fand with fome little ftones therein.

When Boevenbergen is eaftnortheaft from you, it fheweth it felf in a long hill, with fome dale in the middeft on the north fide, with a church, and alfo a church on the fouth fide, and alfo another hill to the northwards of it.

From Boevenbergen to the Holmes the land lieth northnortheaft nine or tenne leagues, betwix them it falleth in with a Bight, it is blak land with hommocks, and fandhilles growen with fpyrie graffe, here and there ftandeth a flat fteeple in the land.

Aboute five leagues from land lieth a bancke of tenne fathome, but it lafteth not long before you get againe deepe water.

The Riffes. Betwixt Boevenbergen and the Holmes lieth the great Iutfih Riffe weft into fea, running over it in twelve or thirteene fathome, then lieth the Naze from you, northweft and by north 24 leagues, running over it in feventeen or eighteene fathome, you may fee the land, on the north fide it is groffe fand, on the fouth fide ftonie like as peafe and beanes.

Weftnorthweft from Boevenbergen about eight leagues it is fixteen fathom deep, groffe ftonie fand ground: ten leagues from the land it is twentie fathome deep groffe ftonie land, like to peafe.

Southweft and by weft from Boevenbergen about nine leagues, it is 25 fathom deep, redde and black fant ground that is the ground of Doggers fand.

Holmes. The Holmes is a plain pointe, going downe fteepe on the northeaft fide upon the middel of the hill ftandeth a fquare church without a fteeple. When that higheft of the land is fouthfoutheaft from you, and that you can but even fee the north end of, it then it is fifteen fathom deep, groffe roug fand, with fome little ftones amongft it.

Two leagues northeaft, or as fome fay, fomewhat more eafterly, off from the northt pointe of the Holmes: to wit, betwixt the north poynte and the Holmes, and the eaftet pointe, lieth a ftoneback (in manner as the Trindell of Lefolde) upon which there is no more then twelve foot water, fo that there remaineth about two thirdt parts of the water betwixt that Stoneback and the north poynt, and the other third parte betwixt the Eaftet poynte an the a forefaid Stoneback: there have divers fhippes beene loft upon it. The forefaid Eafter poynte lieth about four leagues to the eaftwards of the Holmes, and is alfo a high fteepe point, as if were the Holmes. Right thwart of this eafter pointe fhoteth of a riffe almoft a league off into fea, which you may found about in feven fathom. Some fay, that men may fayl through betwixt that riffe and the land. From the Holmes to Robfnor or Robbekmnyt the courfe is northeaft nine leagues.

A little to the weft weftwards of Robfnot in the bight towards the eafter point, neareft to Robfnot ftand five churches with flat fteeples. There lye alfo two blewe lands betwixt the eafter point and Robfnot, in the high, you may fee alfo a cloved hill or fand-hill before you come to Robfnot. It is the all alongft a flat ftrand.

To the eaftwardes of the Holmes goeth in a little river called Mifdorp.

A little to the weftwards of that white cliffe or of Robfnot goeth in alfo a little River, whereupon lieth a little towne called Werlom.

Robfnoti. Robfnot or Robbekmyt is a high round hill, upon the toppe where of ftandeth a church with a fharpe fteeple. The land falleth away to the eaftwards from this poynt, with a great pight towards Harthals.

Thwart of Robfnot is farre off ftatte, fifteene fathom depth is almoft three leagues from the fhore.

There alfo thwart of Robfnot about foure leagues from the fhore lie t a banck of nine fathome, lying alongft the fhore.

Thwarte of Robfnot lieth alfo a rock about a league from the land.

From Robfnot to Harthals it is northeaft and by eaft four leagues,

leagues there ftandeth a flat fteeple betwixt both neareft to Robfnot, there you may fee the high land of Lackley, alongft over that high land.

Harthals is a long fmoot hill which is at the eaft end fomewhat fteep.

Thwart of Harthals lyet a fhoulde or ftony ground, about an Englifh mile the fhoare, upon which (as men faile) there have beene fhippes loft, but men doe feldome come neare it.

The Scawe. From Harthals to the Scawe or Scagen the courfe is eaftnortheaft eight leagues.

The land to the eaftwards of Harthals is altogether full of hommocks and fand-hilles, you may fee the high land of Lakley alfo alongft over this land. Alongft thefe coaftes men finde none fuch long plaine hilles, as are Boevenbergen the Holmes, Harthals and Robfnot.

Somewhat within the point of the Scawe ftandeth a flat Church with a flat fteeple, called Old Schaugen, when that is fouthfoutheaft from you, then there runneth of from the fhoare, a litle fpitte or fhould, there you muft edge fomewhat of from the fhoare, otherwife it is all alonft a fteep ftrand betwixt Harthals and the Scawe, but you may founde about this little fand in four and five fathom fo neare as you will.

Then the eaft end or outermoft point of the Scawe ftandeth, a fire-beakon like a Cape too fee too: when the Church is fouthweft and by weft from you, then are the fire beacon and the fteeple one in the other, and then you are right thwart of the riffe of the Scawe, which lieth of from the point eaftnortheaft, and eaft and by north almoft a league into fea.

He that commeth from the weftwards, and will faile alongft by the land, about the Riffe, muft efpecially by verie carefull in ufing the lead, he may take the founding of the fhore fo neare as he will accordingh as the winde fhall be, in eight, feven, five, four, and alfo well in three fathome, without doing amiffe, he needs not to feare: if he be but carefull in ufing his lead, with a fouthweft winde, he may fayl about in three or four fathome.

When the fire beakon commeth to the eaft fide of the houfes of the Scawe, then you come againft the weft fide of the Riffe, when the fire beakon and the Church are one in the other, then you are on the eaft fide of the Riffe.

When the fire beakon commeth about halfe wayes the houfes, neareft the weft fide, then you are right upon the point of the Riffe, what depth that you have then you fhall keep it ftil, without finding it fhoulder, whether you faile alongft fouthealt or northweft.

He that commeth from the foutwards, and is bound about the Scaw to the weftwards may not found the Riffe becaufe the fouth fide of it is deepe and needle to, it is not good to come neare to it then in twelve, thirteen, or fourteen fathom, efpecially by night or darke wether.

Marcks of the Scawe riffe. For to knowne by certaine markes, when you are cleare of this Riffe, as well over the one fide as the other, then marke, comming from the weftwards, when the old church and the firebeakon are one in the other, then you come upon the weftfide of the Riffe: comming from the fouthwardes or the eaftwardes, when the old Church commeth in the fouth end of the village, then you come upon the fouth fide of the Riffe. When the fteeple and fire beacon are fouthweft & by weft from you, then they are one in the other, and then you are thwart of that Riffe. When the fteeple is fouthweft and fouthweft and by fouth from you, then you are without, or to the weftwardes of that Riffe: when the fteeple or firebeakon is weft fouthweft and by fouth from you, then you are within the Riffe. This you may fet by night, by the compaffe, and fo may perceive, whether you be within or without that riffe, when the Firemaker doth fire well. You may anckor on both fides of the Riffe in feven or eight fathom, and have roome enough to fet faele. Some alfo fay, that men may runne through betwixt the riffe and the land (if neede require) in two fathom and a half.

Tydes out of the Belt. Betwixt the Scawe and Maelftraud or Norwaye it is all foft ground, the neare to Norway the deeper water. When men come out of the Sound, & are in the farewaie, and can getter no ground in eighteen, twentie, & two and twentie fathom, that is a figne that they are about the riffe of the Scawe.

When you come about the Scawe from the weftwardes, and are bound to the Sound or the Belt you muft take, an efpecial care of the tyde that commeth out of the Belt which falleth commonly out of the Belt towardes Norwaye, efpecially when the winde hath blown a while eaft or northeaft, it can carrie a fhipp by night or darke wether under Norwaye, before you fhould thinke of it, it did happen in the yeare 1605, the three and twentieth of may that a fhipp comming thwart of the riffe of the Scawe, fo that the riffe did lye fouthweft from her, did driven with calmes in eight houres, untill fhee came within three leagues neare to the land of northeaft, about Harmenshoott five leagues to the weftwards of Maelftrand, fo great and ftrong current there did fhoote alongft by the riffe towards the northeaft, al through it doth feldome happen, that the tyde doth run there fo ftrong out, yet neverthelesse it behooveth men to be verie carefull, to confider there of, and to reckon there upon.

Sweden. From the Scaw, to Seabuye the courfe is fouth and by weft fixe leagues, there it is upon the road four and five fathom deep. Betwixt the Scaw and Seabuye lye the fmall Helmes foure leagues from the Scaw, and two leagues to the northwards of Seabuye. When you will faile into the Belt, you muft leave then on the ftarboard fide, going on ftill fouth and by weft untill thwart of Seabuy, you may alfo faile through betwixt the Helmes and the main land unto Seabuy, if you will, there is at the fhoulde ft betwixt them 3 fathom water, but about a leaboard the Helmes, betwixt the Helmes and the north end of Lefou, it is foure leagues broad, and in the channel ten fathem deep foft ground.

The lyng of the Helmes, and how men fhal come to ankor there, and alfo of all deeps, fhoulds and dwale grounds, betwixt the Helmes, the Scaw, and Lefou, together with the defcription of the ftand Lefow and the riffes that ly e out there about it is defcribed before.

Betwixt Lefou and Seabuy lye many dwale grounds, which are very uneven of three, foure, five and fixe fathom the like uneven & fhould grounds lie alfo within or to the fouthwards of Seabuy, of foure, five and fixe fathom, but the right channell through betwixt the dwale grounds of Lefou, and the fhoulds of Seabuy is feven and eight fathom deep.

To the fouthwards of the fmall Helms and Seabuy, neerer to the maine land then Lefou, lye alfo fome uneven dwale grounds, upon which there is no more water then 10, 11, and at fome places 12 foot. Hee that draweth but 8 or nine food need not feare of them.

Aelburger deep. For to fayle into Aelburger deth a flat fteeple called Hals, in the havens mouth lieth a buy, and upon the fouthland ftand two Capes, which you muft bring one in the other, by them you fhall finde the buye, the channell lieth in firft weft and by fouth, about a cables length, then you muft run up northwestt and weft right unto Hals, and run in by the north fhore, untill thwart of Hals from the fouth point, of the land fhooteth off a flat which you muft avoid, being thwart of Hals you muft goe fouthweft and by weft unto the bight, and in the crooked channel you muft fhun the north fhore fomewhat and then againe northweft and by weft alongft by the north fide unto the fecond crooked, and then fouth-fouth-weft and afterwards weft-fouth-weft unto the town, in the comming in by the buye, it is two fathome. But for to fayle in there, it is beft to take a Pilot. By the fouth fhore goeth in alfo a little deepe of fix and feven foot.

The Towne Aelburgh lyeth up in the land foure leagues within the river. Alfo there lieth alongft this coaft to the weftwards feme banks, there you muft fhunne the land fomewhat.

The Swed tering. When you fail from the Helmes to Stevenshead, through betwixt the dwale grounds & the flat of Seabuy, you fhal meet with a fhould ground about half wayes betwixt Stevens-head and Seabuy or 5, 6 and 7 fathom. This fhould is called the Swettering, & lieth about 3 leag. eaftwards from Aelburgh deep, the channel there betwixt them is about 10 or 12 fathom deep.

Stevenshead. From Aelburgh deep to Hafelin, the courfe is fouthealt and by eaft about 20 leagues.

Mariacker From Aelburgh deep to Stevenshead the courfe is fouthealt and by fouth about nine leagues. There betwixt them the land lyeth in a great Bay, where in lye the two little townes Mariacker & Randerfen: Mariacker lyeth from Aelburgh deep fouth and fouth and by weft 4 leagues, and from Stevenshead, five leagues. Betwixt Mariacker and Stevenshaven lyeth the River of Randerfen, which runneth up crooked farre into the land, unto the little town Schandelburgh. Randerfen

Hafelin From Stevenhead to Hafelin the courfe is eaft fouthealt 13 leagues. Hafelyu is on the outer fide full of fhoulds, riffes, and grounds. A larger defcription of Hafelyn and Anout as alfo of all the foule grounds and fhoulds, lying the reabouts, you fhall finde in the firft Demonftration of this book.

Chalck-Grounds. A little to the fouthwardes of Stevenfhead lieth a little town called Orumbuy, there lye the Chalck-grounds right before the river of Grimfound in a bay a little about the poynt off Stevenfhead: that is a fand two or three foot water,

but not far of it, is ten fathom deepe you may found them in foure fathom. You may faile up in to Grimfound, unto Grimftee, that is a lading place or Huies.

Greathelm — From Stevenshead unto the great Helme the course is fouth-southwest about fix leagues. The land lieth from Stevenshead unto the point of Ebeltad fouthfouthwelt feven or eight leag Ebeltad is a little Towne lying within the land thwart of the great Helme. Betwixt the great Helme and Jutland it is fixe and feven fathom deepe. Close by Stevenshead, and the point of Ebeltad is eight nioe, and alfo tenne fathom deepe. The great Helme hath two Riffes, one upon the northeast fide, and the other upon the fouthwelt fide.

From Stevenshead to Siero the course is fouthsoutheast 8 leagues, to the northwards of Syero lyeth a ground loofe from the land, divided into two Riffes, which men muft avoid. Thefe two Riffes lye at fome places above water.

From the foutheaft poynt of Siero lieth of a riffe towards Rufnes, here you may anchor behind it.

Wero. — From the great Helme unto the Iland Wero, the courfe is northnorthwelt, and fouthfouthealt foure leagues diftant, there it is 4 and five fathom deep. From Wero there runneth of a fhould unto Kyholm, and about Kyholme: an alfo about the little Iland Samps, it is alfo full of fhould grounds, which run off unto the great Iland Sampfo.

From the great Helm unto the Iland Sampfo it is fouhwelt and northeaft foure or five leagues.

Samps. — From the north end of the Iland Sampfo there fhooteth off a little riffe north into the fea, you muft found clofe about by it for to come into the road of Sampfo, when you will anchor there. It is there in the road tenne fathom deepe, and you fhall be there under the Swan-grounds fheltred for all windes.

Aerhuyfen — From the fouth end of Ebeltad to Aerhuyfen the courfe is weft and by north, and w.northweft five leagues. It is there all fhould water of 2 and 3 fathom deep. He that will ankor in the road before Aerhuyfen, let him bring the great fteeple in the midft betwixt the two other fharp fteeples, there is the beft ground, and good road in three, foure, & five fathom, fo fhould as you will. To the fouthwards of Aerhuyfen goeth in the Wederfound betwixt Iutland and Sampfo: hee that will fayle in there, muft bee well acquainted, for it is there all full of riffes & fhoulds. You may not alfo ufe that fareway by night, by reafon of all the fands and fhoulds, and alfo by day you muft be very carefull and circumfpect in looking out, and not fpare your lead, but you may anchor & have road there every where.

wederfound. — For to find your will faile through the Wederfound, comming off from the great Helme or Ebeltad, you muft leave the Iland Tuns and the Swangrounds on the larboard fide, running all alongft by the Iutifh coaft in 2, or 3 fathom, untill paft Horfens, or the Iland Endelau, which you may not faile to, not come neare from the weftwards, by reafon of all the grounds which lie before it on the weft fide. It is a narrow channel betwixt Endelaun, and the main land, lying from the Wederfound through the Swan-grounds fouth, it is on both fides fhould, and but a creek for to faile through.

Swanne-grounds. — When you come off from the Melverfound and will fayle through the Wederfound, it is beft to runne alongft by the Iutifh fide untill thwart of the river of Horfens, then yo muft edge fomewhat of there from the land, and faile right with the Iland Tons, and fo you runne through betwixt the North- and Souther grounds, leaving the Ilands Tons on the ftarboard fide. When you are then paft Tons, you fhall runne out clofe by the north point of Sampfo, towards the land of Ebeltad, it is altogether one courfe from Horfens to Tons, and forth to Sampfo, and the point of Ebeltad, too wit, Northeaft and fouthealt eight or nine leagues.

Melverfound. — From Horfens, or that Iland Endelaw unto the Melver found, the courfe is fourh fouthweft 6, or 7, leagues. The Melverfound is a deep found of 20, and 15 fathom, very crooked to come into, it goeth in betwixt Fuyenn and Iutland, which are both high lands. From the Iland Ebelo unto Melverfound the courfe is S. W. and fouthweft by fouth five great leagues.

Ebelo. — From the road of Sampfo to Ebelo the courfe is f. f. w. and fouthweft & by fouth 5 leagues. From the fouth end of Sampfo to Ebelo the courfe is fouthweft and by weft foure leagues.

Rooms. — From Sampfo to Rooms the courfe is fouthealt and n. w. 5 leagues. The n. weft coaft of Fuyenn lieth fouthw. and by weft eight leagues. The little Iland Ebelo lieth of a league from the feme, right before Bowens, but you can not faile through betwixt the Iland and Fuynen. To the fouthwards of the Iland lieth a great rocke under water, betwixt this rock & the Iland is the road before Bouwens in eight and nine fathom.

Betwixt Syro and Wero lieth a dangerous riffe, long and broad lying further then halfe way to Siro. When you will run through betwixt the two forefaid Hands a weather of Ruffes riffe, you muft leave at leaft the two third parts of the water on the fide of Wero, & goe in fouthfouthweft towards Roems, which is nine leagues diftant.

Haters riffe. — The forefaid riffe is called Haters riffe, is on the eaft fide very hard and ftony, hee that commeth from Baltfack, he fhall run clofe to the Iland Wero, for to avoid that riffe, the channel betwixt the riffe and Wero is not very broad, and 3 fathom, or three fathom and a halfe deep. He that commeth from Roems or Rufnes, and will faile through Wero found, let him bring the great Helm to the eaft fide of Wero, and keep them fo ftanding failing on fo right with them, he fhall, fo doing, take no hurt of Haters riffe. Betwixt Syro and Haters riffe and fomwhat more fouthwardly, the ground is very uneven of 5, 6, 7, 8, and nine fathom. On the fouthfide of Haters riffe it is good anckoring for northerly winds in 6, and 7 fathom.

Rufnes and Syre lye northnortheaft and fouthfouthweft about foure leagues afunder.

From the point of Rufnes runneth of a little riffe to feawards but to the eaftwards of it betwixt Rufnes and Hafelyn, lyeth of a riffe at leaft two leagues into fea, which lieth dry at the ende, and by it, it is very fteep, clofe, alongft by the end it is eight fathom deep.

From Rusnes to Spro it is fouth and by eaft eight or nine league. Betwixt Rufnes and Spro lyeth Callenburgh, which is Callenalfo a lade place, and about 2 leagues to the fouthwards of Calburgh. lenburch lyeth a flat alongft the coaft about a league from the fhore of 5 fathom depth.

From the eaft end of Spro runneth of a litle riffe or ledge of rocks, and over againit it commeth alfo a flat fhooting of from the land, betwixt them both it is 4 and 5 fathom deep, But behinde or thwart of Spro lieth Caffeur, a faire Have, where men doe lie at the Kay, and let their goods be carried into the fhips. Caffeur.

From Spro to Langeland the courfe is foutheaft, & by fouth foure leagues diftant. He that commeth alongft to the eaftwards of Wero, through the channel betwixt Wero and Haters riffe, and will faile to Roems, let him go on due fouth and by eaft, and then he fhall runne alongft about an Engliih mile to the eaftwards of the Boltfack, and fall with the land a little to the eaftwards of Roems: likewife hee that goeth from Roems, a little to the eaftwards of it, on north and by weft, hee fhall fall betwixt Wero and Haters riffe rigt in the fareway. Betwixt Roems and Fuynen you may run thorow in two fathom, but with great fhips you can not goe through there.

From the north end of Fuynen frooteth of a litle riffe about an Engliih mile into fea. About a league eaft and by north from Roems lieth a fhould of 3, 4, and five fathom, which is fteep, and fhould eth up fo fuddenly, th at a man, not knowing of it, and findeth it fo by the lead, should bee affrighted at it. To the fouthwards of Roems, in the land of Fuynen lieth a little towne, for to lade, called Cartemonde. The Haven goeth in from the eaftwards, and it is should on the weft fide, there lie de. no buyes in the Havens mouth, there is no more water then 5, 6, or fometimes feven foot. Cartemon

From Roems to Spro, or Knuytshead, the courfe is fouth and by eaft, and fouthfoutheaft 7 leagues. Betwixt Spro and Knuytshead it is 12, and 13 fathom deep. But betwixt Roems and Spro, it is 10, and 11, fathom deep. Spro.

Even about to the fouthwards of the point of Knuytfhead in Buyen lieth the haven of Nyburgh, when you are about the point you runne right up to the towne, about northweft, a league there it is fix and feven fathom deep. Men doe lie there with fhips to the Kay, and let their goods bee carried in what they will. Nyburgh

From Knuytshead to Langeland the courfe is foutheaft 4 leagues, and then you leave Spro lying on the ftarboard fide. From the fouthweft end of Spro foureth of a litle riffe which you muft avoid. At the north end of Langeland lye the little Ilands of the Friffell, which are round about very fteep. The Friffell

From Knuytsheat to the Iland Taffing the courfe is fouth foure leagues and then you leave the Friffel lying on the larboard fide, and run through betwixt the Friffell and Fuynen. If you be bound to Swineburgh, then go from the Friffell to the foutheaft end of Fuyneu, on fouthfoutheaft, and you shall meet a little Iland which you may runne about on both fides of it. Through betwixt Taffing and that little Iland, or you may run alongft by the land of Fuynen, untill that you come to the little Towne of Swineburgh, which lieth over againft the Iland of Taffing. Over againft the point of Fuynen lyeth a little Iland called Olms, then you muft goe up to the weftwards. You may alfo runne about on the other fide off Taffing, and leave the Iland Arr with the foule grounds (which lie betwixt Arr and the fouth-caft

Taffing. — Swynburg

Sound of Flensburg

Eaft end of Fuynen on the larboard fide of you, it is not deeper upon thefe grounds then 6 foot. Now as that you fhal come by the litle Iland Olms, or by the foutheaft point of Fuynen, then you muft (as before is faid) goe up to the weftwards about the point of Fuynen towards Woburgh. Upon the fouth fide of thefe forefaid grounds goeth alfo a Deepe through, weft, and weft and by fouth through betwixt the grounds and the Iland Arr: upon this Iland Arr lyeth a little Towne called Koping. This foule ground is three leagues long, and that Iland Arr is alfo three leagues long, they lie both of them eaft and weft, and the Munk Iland lieth at the end of thefe grounds before Woburgh in Fuynen, which hath two riffes, the one fhooteth off from the foutheaft end eaft into fea the other from the north point northeaft into the fea. When you faile through to the northwards of thefe grounds, to wit, betwixt Fuynen and thefe grounds, towards Woburgh, you fhall alfo meet with the forefaid Munk, with another litle Iland or two more, leave them lying on the larboard fide, and run all along by the land of Fuynen, about weft and weft and by north unto the point of Askens, which is about five leagues diftant from the foutheaft point.

From the eaft point of Askens unto the litle Ilands Toreu and Areu, the courfe is weft and by north, and weftnorthweft two leagues, thefe two litle Ilands lye one over againft the other, the one on the fide of Iutland, and the other on the fide of Fuynen men runne through there betwixt two riffs which run off one againft the other, it is there 4 and 5 fathom deep.

Too the northwards of weftwards of Areu lieth the Sound of Hadderfleu, which lieth in about weft and by fouth, upon it lieth the towne Haddefleu two leagues within the land.

From Areu or Foreu to Melverfound the courfe is n. n. w. 7 leagues, which you muft run into from the fouth wards firft weftward: unto the found of Coldingen, being a broad Sound, which goeth a league into the land, if you will goe through the Melverfound, you muft leave it on the larboard fide, and goe up to the eaftwards unto the towne of Melver, where you come then againe into a crooked channell. The Melverfound goeth out to the northwards with a very crooked channell, and you come out a gaine upon the broad water to the northwards of Fuynen, as is before faid, You may alfo fail off from Areu into the found of Aelfen eaft, alongft fouthfouthweft unto Apenrade, and then about behind the Iland of Aelfems until you come into the found of Flesburg.

The Melverfound and the litle Iland Areu lye fouthfouth eaft and northnorthweft one from the other.

To faile out of the Aifen found from Areu or the Melverfound, then go from Areu or Toreu unto the Roen eaft and by fouth three leagues, and then through betwixt the Iland and Fuynen that is alongft to the northwards of Roen, for you can not goe about to the fouthwards of it. The Roen is a bad and fhould riffe fhooting of from Aelfeu, whereunto it is fait, the outher end of it lieth dry like Anoutriffe. From the Roen to Arr or Koping the courfe is foutheaft and by eaft 5 leagues.

From the foutheaft end of Aelfe fhooteth off a great riffe towards Arr called the Poles riffe: you muft run through betwixt Arr and that riffe, leaving two third parts of the water on the Aelfen fide, and one third part towards Arr, & runne on fo with the fouth end of Langeland, until that you come againft Cope.

From Arr to the fouth end of Langeland, the courfe is foutheaft by eaft, and e. f. e. foure leagues. And from the Poles riffe to the fouth end off Langeland, the courfe is weft and by fouth fix leagues. You may run through betwixt Langeland and Arr the Northwards and come out againe into the Belt by Nyburgh: from the fouth end of Langeland to Taffing, it is north and by weft 6 leagues) you may fail about Taffing on both fides, and leave Arr and the foule grounds lying on the one fide of you. Upon thefe grounds it is but fix foot deep.

You may alfo faile through betwixt the forefaid grounds and Fuynen into the found of Aelfen, unto the litle Ilands of Areu and Toreu, as hath been faid here before.

From the litle Iland Areu to Apenrade the courfe is fouthfouthweft five leagues. The found of Apenrade is a broad open found, upon which lieth the forefaid towne of Apenrade.

From the river of Apenrade unto the crooked channell off Sonderburgh, which goeth in betwixt the Iland Aelfen and the maine land, the courfe is eaft 3 leagues, there you may faile through about behinde the Iland of Alfen to Sonderburgh, and then forth into the found of Flensburgh. It is very narrow and crooked betwixt the Iland and the maine land, but when you are come through the narrow and crooked channell into the found of Flensburg, there it is broader and larger.

The found of Flensburgh goeth in betwixt Sonderburgh & Holterland, being a broad found. He that will faile in there, must take very good heed of the Holfters fide, when you begin to come betwixt the two lands, and run in alongft by the land off Aelft, for from Nubell or Holterland lye off the Chalck Chalckgrounds halfe wayes the deep. This found lieth in weft and by grounds. fouth untill that you come before the river. There lieth in the rivers mouth a little Iland on the ftarboard fide, you muft run in to the eaftwards of it, and goe in weft and by fouth and weft, untill you come within the crooked channell off the River or Sound, and then you muft goe up againe fouthweft then you fhall fee the towne of Flensburgh lye before you.

Of the depths about these places, and in what depths men may see the land.

In the Ripe, Eyder and Hever, a fouth and north moone maketh the highest water, the flouth commeth there out of the northweft, and the ebbe out off the fouthealt, and fo run over the north grounds.

In the deep of Luft or Silt, a fouth and north moone maketh the highed water, the flood commeth there out of the northweft, and falleth very little alongft the land, and the ebbe to the contrary.

In Knurys deep, a fouthfoutheaft and northnortheaft moone maketh the highest water. The flood commeth here alfo out of the northweft and falleth but great quarter tyde alongft the land, and the ebbe to the contrary.

In the Haven of Zayderzee, the Schellingh eegh a fouthfoutheaft and northnortheaft moone maketh the highest water: the flood commeth there alfo out of the northweft and falleth over the Reefs hone towards the fattail Iland, and the ebbe againe to the contrary, of from the land in the north Sea.

Off the grounds and depths.

The grounds of the Hever & the banckes of the Smal deep without the ftand and Eyderfleet lye at leaft two leagues without the coaft of the land.

Betwixt Holyland and Ameren or Strand is tenne or eleven fathom deepe, in that depth you may fea beth the lands, if you climbe up in the fhrouds. Strand is to bee knowne by the fteeple of Pielworme, ftanding upon the fouth end of the land. Upon the Iland ftrand more churches and fteeples, but none fo good to be knowne as Pielworme.

Ameren is a league and a halfe long, & hath all alongft low fandhils growne with fyne graffe.

The Iland Silt you may fee in ren fathom: upon this Iland (neareft to the north end) lieth a high deepe red cliffe, on both fides going flooping downe; upon the fouth fide of the cliffe ftandeth a ftich Church, with a low fteeple, and to the eaftwards of it another Church, with a high thick fteeple called Heydom. The north end of the Iland is called Luft, and the fouth end Voortrap.

Courses and Distances.

From the Eyder to Hever the land lieth northnortheaft and f. f. e. 5 leagues
From the Hever, or the fouth end of Strand to the fouth end of Ameren northnorthweft about —— 2 leagues
Two leagues north from Ameren lieth Sile which is about 5 leagues long, and lieth fouth and by eaft, and north and by weft.
From the north end of Sile, called Luft, unto the fouth end of Rim or Rem, is is northeaft and f. w. one great league, Rem is three leagues long, and lyeth moft fouth and north.
From the north end of Rem, to the fouth end of Manu, it is northeaft and f. w. a league and a halfe, you can hardly get fight of it by reafon of the grounds, and great fhowels, which lye thwart of it to feawards.
Manu and Phanu lye about two leagues one from the other, Manu is almoft a league long, and Phanu about 4 leag. long, and lieth from Phanu Knuyter to Knuyes-deepe, f. f. e. and n. n. w. This ftand hath alfo a faire ftrand, but the north end towards Grouwedeepe is very flat.
From Phanu to Dodenbergh it is about 4 leagues, betwixt them lye the havens of the Grouwedeepe and Schelling-kroegh.
From Holyland to the Eyder eaft and by north, and weft and by f. 7 leagues
From Holyland to the outermoft buye in the Hever, n. e. and f. w. 8 leagues
You may lye by the outermoft buye in the Hever, and fee Holyland with cleare fight.
From Holyland to Ameren or Smalle-deepe, n. n. e. fomewhat eafterly, and f. f. w. fomewhat wefterly —— 10 leagues
From Holeland to the deepe of Silt or Iuft, north and by eaft —— 12 leagues
From Holyland to Knuyts-deep or Ryper-deepe, north and north and by eaft —— 25 leagues
From Holyland to the Horne or the Dodenbergh north and by E. 32 leagues
From Knuyts deep or the Iland Phanu to the Fiye, f. w. and by f. 10 leagues
From the Iland Silt to the Fly northeaft and fouthweft —— 46 leagues
From the Dodenbergh or the Horne, to the haven or Numen or Rinckoperdeepe, north and by weft —— 7 or 8 leagues
From the Rinkopper deep, or the haven of Numen to boevenbergben north and by weft about —— 10 leagues
From the Dodenbergh to boevenbergh, the land of Iutland lyeth north and by weft, and fouth and by eaft —— 17 or 18 leagues
From Boevenbergen to the Holmes northnortheaft —— 9 leagues
From the Holmes to Robbfnet or Robbe-knuyt northeaft —— 9 leagues
From Robfnet to Harrshals northeaft and by eaft —— 4 leagues
From Harrshals to the Scawe or Schagen eaftnortheaft —— 8 leagues
From Rinkopper or Numen-deep to the Fly fouthfouthweft or a little more wefterly about —— 18 leagues
From boevenbergen alongft Iutland, without the grounds unto the Elve or the outermoft buy fouth and by eaft about —— 60 leagues
From boevenberghen to Holyland, fouth and by eaft fomewhat foutherly about —— 45 leagues
From boevenbergen to the Flye or borneriffe f fouthweft about —— 69 leagues
From boevenbergen to the north Fosland f. w and by f. 118 or 120 leagues
From boevenbergen to the holmes before Yarmouth fouthweft —— 93 leagues
From boevenbergen to Flamborgh-head weftfouthweft —— 200 leagues
From boevenbergen to Scarborough w. f. w. fomewhat wefterly —— 100 leagues
From boevenbergen to the River of New-caftle or Tynemouth weft and by fouth about —— 106 leagues
From boevenbergen to boecknes weft and by north about —— 100 leagues
From boevenbergen to the Naze northweft and by north —— 24 leagues
From the riffe in fixteene fathom to the Fly f. and by w. 62 or 64 leagues
From the riffe in eighteen fathom to the ftrait betwixt Calice and Dover fouthfoutheaft about —— 120 leagues
From the holmes to the Naze northweft about —— 190 or 200 leagues
From the holmes to Fleckery northweft and by north —— 9 leagues
From the Holmes to Mardow north —— 24 leagues
From the Holmes to Longlound north and by eaft —— 350 or 360 leagues
From the Holmes to Ferderoer northnortheaft —— 60 leagues
From the Scawe to Tynemouth weftfouthweft —— 130 leagues

but not far of it, is ten fathom deepe you may found them in foure fathom. You may saile up in to Grimsound, unto Grimftee, that is a fading place or Hules.

Greathelm

From Stevenshead unto the great Helme the course is foath-fouthwest about fix leagues. The land lieth from Stevenshead unto the point of Ebeltad fouthfouthweft feven or eight leag Ebeltad is a little Towne lying within the land thwart of the great Helme. Betwixt the great Helme and Intland it is fixe and seven fathom deepe. Close by Stevenshead, and the point of Ebeltad is eight nine, and alfo tenne fathom deepe. The gret Helme hath two Riffes, one upon the northeaft fide, and the other upon the fouthweft fide.

From Stevenshead to Siero the course is fouthfouthestt 8 leagues, to the northwards of Syero lyeth a ground loose from the land, divided into two Riffes, which men muft avoid. Thefe two Riffes lye at fome places above water.

From the fouthestt povnt of Siero lieth of a riffe towards Rufnes, here you may ancker behind it.

Wero.

From the great Helme unto the Iland Wero, the course is northnorthweft, and fouthfouthestt foure leagues diftant, there it is 4 and five fathom deep. From Wero there roineth of a fhould unto Kyholm, and about Kyholme: and alfo about the little Iland Samps, it is alfo full of fhould grounds, which run off unto the great Iland Sampfo.

Kyholme Sampfo.

From the great Helm unto the Iland Sampfo it is fouhweft and northeaft foure or five leagues.

Samps.

From the north end of the Iland Sampfo there fhooteth off a litle riffe north into the fea, you muft found clofe about by it for to come into the road of Sampfo, when you will ancker there. It is there in the road tenne fathom deepe, and you fhall be there under the Swan-grounds fheltred for all windes.

Aerhuysen

From the fouth end of Ebeltad to Aerhuysen the courfe is weft and by north, and w.northweft five leagues. Its there all fhould water of 2 and 3 fathom deep. He that will ancker in the road before Aerhuysen, let him bring the great fteeple in the midft betwixt the two other fharp fteeples, there is the beft ground, and good road in three, foure, & five fathom, fo fhould as you will. To the fouthwards of Aerhuysen goeth in the Wederfound betwixt Iutland and Sampfo: hee that will fayle in there, muft bee well acquainted, for it is there all full of riffes & fhoulds. You may not alfo ufe that fareway by night, by reafon of all the fands and fhoulds, and alfo by day you muft be very carefull am circumfpect in looking out, and not fpare your lead, but you may anckor & have road there every where.

wederfound.

For to fayl through the wederfound.

When you will faile through the Wederfound, comming off from the great Helme or Ebeltad, you muft leave the Iland Tuns and the Swangrounds on the larboard fide, running all alongft by the Iutifh coaft in 2, or 3 fathom, untill paft Horfens, or the Iland Endelau, which you may not faile to, not come neare from the weftwards, by reafon of all the grounds which lie before it on the weft fide. It is a narrow channel betwixt Endelan, and the main land, lying from the Wederfound through the Swan-grounds fouth, it is on both fides fhould, and but a creek for to faile through.

Swanne-grounds.

When you come off from the Melverfound and will fayle through the Wederfound, it is beft to runne alongft by the iutifh fide untill thwart of the river of Horfens, then yo muft edge fomewhat of there from the land, and faile right with the land Tons, and fo you runne through betwixt the Northe. and Southe grounds, leaving the lands Tons on the ftarboard fide. When you are then paft Tons, you fhall runne out clofe by the north point of Sampfo, towards the land of Ebeltad, it is altogether one courfe from Horfens to Tous, and forth to Sampfo, and the point of Ebeltad, too wit, Northeaft and fouthealt eight or nine leagues.

Melver-found.

From Horfens, or that Iland Endelaw unto the Melver found, the courfe is fourhfouthweft 6, or 7, leagues. The Melverfound is a deep found of 20, and 15 fathom, very crooked to come into, it goeth in betwixt Fuynen and Iutland, which are both high lands. From the Iland Ebelo unto Melverfound the courfe is S. W. and fouthweft by fouth five great leagues.

Ebelo.

From the road of Sampfo to Ebelo the courfe is f. f. w. and fouthweft & by fouth 5 leagues. From the fouth end of Sampfo to Ebelo the courfe is fouthweft and by weft foure leagues.

Roems.

From Sampfo to Roems the courfe is foutheaft and n. w. 5 leagues. The n. weft coaft of Fuynen lieth fouthw, and by weft eight leagues. The little Iland Ebelo lieth of a league from the fame, right before Bowens, but you can not faile through betwixt the Iland and Fuynen. To the fouthwards of the Iland lieth a great rocke under water, betwixt this rock & the Iland is the road before Bouwens in eight and nine fathom.

Betwixt Syro and Wero lieth a dangerous riffe, long and broad lying further then halfe way to Siro. When you will run through betwixt the two foresaid Ilands a weather of Ruffes riffe, you muft leave at leaft the two third parts of the water on the fide of Wero, & goe in foutfouthweft towards Roems, which is nine leagues diftant.

Haters riffe.

The foresaid riffe is called Haters riffe, is on the eaft fide very hard and ftony, hee that commeth from Baltfack, he fhall run clofe to the Iland Wero, for to avoid that riffe, the channel betwixt the riffe and Wero is not very broad, and 3 fathom or three fathom and a halfe deep. He that commeth from Roems or Rufnes, and will faile through Wero found, let him bring the great Helm to the eaft fide of Wero, and keep them fo ftanding failing on fo right with them, he fhall, fo doing, take no hurt of Haters riffe. Betwixt Syro and Haters riffe and fomwhat more fouthwardly, the ground is very uneven of 5, 6, 7, 8, and nine fathom. On the fouthfide of Haters riffe it is good anckoring for northerly winds in 6, and 7 fathom.

Rufnes and Syre lye northnortheaft and foutfouthweft about foure leagues afunder.

From the point of Rufnes runneth of a little riffe to feawards but to the eaftwards of it betwixt Rufnes and Hafelyn, lyeth of a riffe at leaft two leagues into fea, which lieth dry at the ende, and by it, it is very fteep, clofe, alongft by the end it is eight fathom deep.

From Rusnes to Spro it is fouth and by eaft eight or nine league. Betwixt Rufnes and Spro lyeth Callenburgh, which is alfo a lade place, and about 2 leagues to the fouthwards of Callenburch lyeth a flat alongft the coaft about a league from the fhore of 5 fathom depth.

Callenburgh

From the eaft end of Spro runneth of a litle riffe or ledge of rocks, and over againit it commeth alfo a flat fhooting of from the land, betwixt them both it is 4 and 5 fathom deep, But behinde or thwart of Spro lieth Caffe ur, a faire Have, where men Caffe doe lie at the Kay, and let their goods be carried into the fhips.

From Spro to Langeland the courfe is foutheaft, & by fouth foure leagues diftant. He that commeth alongft to the eaftwards of Wero, through the channel betwixt Wero and Haters riffe, and will faile to Roems, let him go on due fouth and by eaft, and then he fhall runne alongft about an Engliih mile to the eaftwards of the Bolt fack, and fall with the land a mile to the eaftwards of Roems: likewife hee that goeth from Roems, or a little to the eaftward of it, on north and by weft, hee fhall fall betwixt Wero and Haters riffe rigt in the fareway. Betwixt Roems and Fuynen you may run thorow in two fathom, but with great fhips you can not goe through there.

From the north end of Fuynen fhooteth of a litle riffe about an Engliih mile into fea. About a league eaft and by north from Roems lieth a fhould of 3, 4, and five fathom, which is fteep, and fhouldeth up fo fuddenly, th at a man, not knowing of it, and findeth it fo by the lead, should bee affrighted at it. To the fouthwards of Roems, in the land of Fuynen lieth a little towne, for to lade, called Cartemonde. The Haven goeth in from the eaftwards, and it is fouthwards on the weft fide, there lie de. no buyes in the Havens mouth, there is no more water then 5, fix, or fometimes feven foot.

Carten

From Roems to Spro, or Knuytshead, the courfe is fouth and by eaft, and fouthfoutheaft 7 leagues. Betwixt Spro and Knuytshead it is 12, and 13 fathom deep. But betwixt Roems and Spro, it is 10, and 11, fathom deep.

Spro.

Even about to the fouthwards of the point of Knuythead in Buyen lieth the haven of Nyburgh, when you are about the point you runne right up to the towne, about northweft, a league there it is fix and feven fathom deep. Men doe lie there with fhips to the Kay, and let their goods bee carried in what they will.

Nyboung

From Knuytshead to Langeland the courfe is foutheaft 4 leagues, and then you leave Spro lying on the ftarboard fide. From the fouthweft end of Spro shooteth of a litle riffe which you muit avoid. At the north end of Langeland lye the little Ilands of the Friffell, which are round about very foule. From Knuytshead to the Iland Taffing the courfe is fouth foure leagues and then you leave the Friffel lying on the larboard fide, and run through betwixt the Friffell and Fuynen. If you be bound to Swineburgh, then go from the Friffell to the foutheaft end of Fuyneu, on fouthfoutheaft, and you shall meet a little Iland which you may runne about on both fides of it. Through betwixt Taffing and that little Iland, or you may run alongft by the land of Fuynen, untill that you come to the little Towne of Swineburgh, which lieth over againft the Iland of Taffing. Over againft the point of Fuynen lyeth a little Iland called Olms, then you muft goe up to the weftwards. You may alfo runne about on the other fide off Taffing, and leave the Iland Arr with the foule grounds (which lie betwixt Arr and the foutheaft

Taffing.

The Friffe

Swynburg

The found of Swineburg.

Sound of Flensburg

East end of Fuynen) on the larboard fide of you, it is not deeper upon thefe grounds then 6 foot. Now as that you fhal come by the litle Iland Olms, or by the foutheaft point of Fuynen, then you muft (as before is faid) goe up to the weftwards about the point of Fuynen towards Woburgh. Upon the fouth fide of thefe forefaid grounds goeth alfo a Deepe through, weft, and weft and by fouth through betwixt the grounds and the Iland Arr: upon this Iland Arr lyeth a little Towne called Koping. This foule ground is three leagues long, and that Iland Arr is alfo three leagues long, they lie both of them eaft and weft, and the Munk Iland lieth at the end of thefe grounds before Woburgh in Fuynen, which hath two riffes, the one fhooteth off from the foutheaft end eaft into fea the other from the north point northeaft into the fea. When you faile through to the northwards of thefe grounds, to wit, betwixt Fuynen and thefe grounds, towards Woburgh, you fhall alfo meet with the forefaid Munk, with another little Iland or two more, leave them lying on the larboard fide, and run all along by the land of Fuynen, about weft and weft and by north unto the point of Askens, which is about five leagues diftant from the foutheaft point.

Koping.

Askens.

Litle Ilands a eat and north.

From the eaft point of Askens unto the litle Ilands Toreu and Areu, the courfe is weft and by north, and weftnorthweft two leagues, thefe two litle Ilands lye one over againft the other, the one on the fide of Iutland, and the other on the fide of Fuynen men runne through there betwixt two riffs which run off one againft the other, it is there 4 and 5 fathom deep.

Sound off Hadderflen

Too the northwards of weftwards of Areu lieth the Sound of Hadderfleu, which lieth in about weft and by fouth, upon it lieth the towne Hadderfleu two leagues within the land.

Sound off Coldingen

From Areu or Foreu to Melverfound the courfe is n. n. w. 5 leagues, which you muft run into from the fouthwards firft weftward: unto the found of Coldingen, being a broad Sound, which goeth a league into the land, if you wil goe through the Melverfound, you muft leave it on the larboard fide, and goe up to the eaftwards unto the towne of Melver, where you come then againe into a crooked channell. The Melverfound goeth out to the northwards with a very crooked channell, and you come out a gaine upon the broad water to the northwards of Fuynen, as is before faid, You may alfo fail off from Areu into the found of Aelfere and fouthfouthweft unto Apenrade, and then about behind the Iland of Aelfems untill you come into the found of Flesburg.

Apenrade.

The Melverfound and the litle Iland Areu lye fouthfouth eaft and northnorthweft one from the other.

To faile out of the Aifen found from Areu or the Melverfound, then go from Areu or Toreu unto the Roen eaft and by fouth three leagues, and then through betwixt the Iland and Fuynen that is alongft to the northwards of Roen, for you can not goe about to the fouthwards of it. The Roen is a bad and fhould riffe fhooting of from Aelfeu, whereunto it is faft, the outher end of it lieth dry like Anoutriffe. From the Roen to Arr or Koping the courfe is foutheaft and by eaft 5 leagues.

The Roen.

Poles riffe.

From the foutheaft end of Aelft fhooteth off a great riffe towards Arr called the Poles riffe: you muft run through betwixt Arr and that riffe, leaving two third parts of the water on the Aelfen fide, and one third part towards Arr, & runne on fo with the fouth end of Langeland, until that you come againft Cope.

From Arr to the fouth end of Langeland, the courfe is foutheaft and by eaft, and e. f. e. foure leagues. And from the Poles riffe to the fouth end off Langeland, the courfe is weft and by fouth fix leagues. You may run through betwixt Langeland and Arr the Northwards and come out againe into the Belt by Nybargh: from the fouth end of Langeland to Taffing, it is north and by weft 6 leagues) you may fail about Taffing on both fides, and leave Arr and the foule grounds lying on the one fide of you. Upon thefe grounds it is but fix foot deep.

Taffing.

You may alfo fail off through betwixt the foresaid grounds and Fuynen into the found of Aelfen, unto the little Ilands of Areu and Toreu, as hath been faid here before.

From the litle Iland Areu to Apenrade the courfe is fouthfouthweft five leagues. The found of Apenrade is a broad open found, upon which lieth the forefaid towne of Apenrade.

The found of Apenrade.

From the river of Apenrade unto the crooked channell off Sonderburgh, which goeth in betwixt the Iland Aelfen and the maine land, the courfe is eaft 3 leagues, there you may faile through about behinde the Iland of Alfen to Sonderburgh, and then forth into the found of Flensburgh. It is very narrow and crooked betwixt the Iland and the maine land, but when you are come through the narrow and crooked channell into the found of Flensburg, there it is broader and larger.

The found of Flensburgh goeth in betwixt Sonderburgh & Holterland, being a broad found. He that will faile in there, muft take very good heed of the Holfters fide, when you begin to come betwixt the two lands, and run in alongft by the land off Aelft, for from Nubell or Holterland lye off the Chalck chalckgrounds halfe wayes the deep. This found lieth in weft and by grounds. fouth untill that you come before the river. There lieth in the rivers mouth a little Iland on the ftarboard fide, you muft run in to the eaftwards of it, and goe in weft and by fouth and weft, untill you come within the crooked channell off the River or Sound, and then you muft goe up againe fouthweft then you fhall fee the towne of Flensburgh lye before you.

Of the depths about thefe places, and in what depths men may fee the land.

In the Ripe, Eyder and Hever, a fouth and north moone maketh the higheft water, the flouth commeth there out of the northweft, and the ebbe out off the fouthealt, and fo run over the north grounds.

In the deep of Lift or Silt, a fouth and north moone maketh the higheft water, the flood commeth there out of the northweft, and falleth very little alongft the land, and the ebbe to the contrary.

In Knuyts deep, a fouthfouthweft and northnortheaft moone maketh the higheft water. The flood commeth here alfo out of the northweft and falleth but great quarrer tyde alongft the land, and the ebbe to the contrary.

In the Haven of Zayderzye, the Growe deep, the Schellingke deep, a fouthe fouthweft and northnortheaft moone maketh the highelt water, the flood commeth there alfo out of the northweft and falleth over the Reefs hone towards the Iutifh Iland, and the ebbe againe to the contrary, of from the land in the north Sea.

Off the grounds and depths.

The grounds of the Hever & the banckes of the Smal deep without the ftrand and Eyderfleet, lye at leaft two leagues without the coaft of the land.

Betwixt Holyland and Ameren or Strand it is tenne or eleven fathom deepe, in that depth you may fea both the lands, if you climbe up in the fhrouds. Strand is to bee knowne by the fteeple of Pielworme, ftanding upon the fouth end of the land: Upon the Iland ftand more churches and fteeples, but none fo good to be knowne as Pielworme.

Ameren is a league and a halfe long, & hath all alongft low fandhils growne with fpicy grafle.

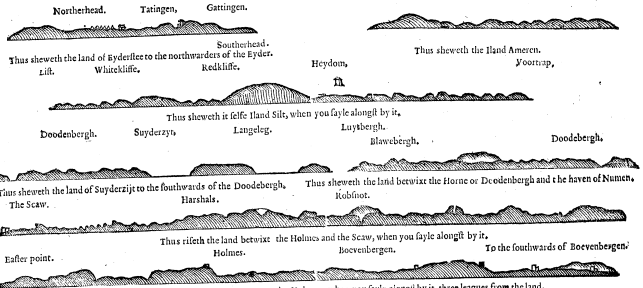
The Iland Silt you may fee in ten fathom: upon this Iland (neareft to the northend) lieth a high fteepe red cliffe, on both fides going floping downe; upon the fouth fide of the cliffe ftandeth a fhit Church, with a low fteeple, and to the eaftwards of it another Church, with a high thick fteeple called Heydom. The north end of the Iland is called Lift, and the fouth end Vootrap.

Courfes and Diftances.

From the Eyder to Hever the land lieth northnortheaft and f. f. e.	5 leagues
From the Hever, or the fouth end of Strand to the fouth end of Ameren northwelt about	5 leagues
Two leagues north from Ameren lieth Silt which is about 5 leagues long, and lieth fouth and by eaft, and north and by weft.	
From the north end of Silt, called Lift, unto the fouth end of Rim or Rem, it is northeaft and f. w. one great league, Rem is three leagues long, and lyeth moft fouth and north.	
From the north end of Kem, to the fouth end of Manu, it is northeaft and f. w. a league and a halfe, you can hardly gee fight of it by reafon of the grounds, and great fhowals, which lye thwart of it fowards.	
Manu and Phanu lye about two leagues one from the other, Manu is almoft a league long, and Phanu about 4 leag. long, and lieth from Phanu Knuyter to Knuytes-deepe, f. f. e. and n. n. w. This Iland hath alfo a faire ftrand, but the north end towards Grouwedeepe is very flat.	
From Phanu to Dodebergh it is about 4 leagues, betwixt them lye the havens of the Grouwedeepe and schelling-kroegh.	
From Holyland to the Eyder eaft and by north, and weft and by f.	7 leagues
From Holyland to the outermoft buy in the Hever, n. e. and f. w.	8 leagues
You may lye by the outermoft buye in the Hever, and fee Holyland with clear fight.	
From Holyland to Ameren or Smalle-deepe, n. n. e. fomwhat eafterly, and f. f. w. fomewhat wefterly	10 leagues
From Holyland to the deepe of Silt or Iift, north and by eaft	10 leagues
From Holyland to Knuyts-deep or Rypert-deepe, north and north and by eaft	25 leagues
From Holyland to the Horne or the Dodenbergh north and by S.	32 leagues
From Knuyts deep or the Iland Phanu to the Flye, f. w. and by f.	10 leagues
From the Iland Silt to the Fly northeaft and fouthw eft	46 leagues
From the Dodenbergh or the Horne, to the haven or Numen or Rinckoperdeepe, north and by weft	7 or 8 leagues
From the Rinkopper deep, or the haven of Numen to boevenbergben north and by weft about	10 leagues
From the Dodenbergh to boevenbergh, the land of Iutland lyeth north and by weft, and fouth and by eaft	17 or 18 leagues
From Boevenbergen to the Holmes northnortheaft	9 leagues
From the Holmes to Robfnot or Robbe-knuyt northeaft	9 leagues
From Robfnot to Harrshals northeaft and by eaft	4 leagues
From Harrshals to the Scawe or Schagen eaftnortheaft	8 leagues
From Rinkopper or Numen-deep or the Fly northfouthweft or a little more wefterly about	58 leagues
From boevenbergen alongft Iutland, without the grounds unto the Elve or the outermoft buy fouth and by eaft about	60 leagues
From boevenbergben to Holyland, fouth and by eaft fomewhat foutherly about	45 leagues
From boevenbergen to the Flye or borneriffe f fouthweft about	69 leagues
From boevenbergen to the north Forland f. w. and by f. 118 or 120 leagues	
From boevenbergen to the holmes before Yarmouth fouthweft	93 leagues
From boevenbergen to Flamborough-head weftfouthweft	200 leagues
From boevenbergen to Scarbrouge w. f. w. fomewhat wefterly	200 leagues
From boevenbergen to the River of New-caftle or Tynemouth well and by fouth about	206 leagues
From boevenbergen to boeckmes weft and by north about	120 leagues
From boevenbergen to the Naze northweft and by north	24 leagues
From the riffe in faxteene fathom to the Fly f. and by w. 62 or 64 leagues	
From the Kiffe in eighteen fathom to the ftrait betwixt Callice and Dover fouthfoutheaft about	120 leagues
From the holmes to the Naze northwest about	190 or 200 leagues
From the holmes to Fleckery northweft and by north	9 leagues
From the Holmes to Mardow north	24 leagues
From the Holmz to Longfound north and by eaft	35 or 36 leagues
From the Holmes to Ferderoer northnortheaft	40 leagues
From the beawe to Tynemouth weftfouthweft	136 leagues

From the Scawe to the Naze weſt ——— 33 leagues
From the Scaw to Heckery weſt and by north ——— 25 or 26 leagues
From the Scaw to Reperwick weſt and by north and n. n. w. 20 leagues
From the Scawe to Mardowe northweſt and by weſt 20 or 21 leagues
From the Scawe to the Longſound northweſt and by north or northerly 2 a little more
From the Scawe to Ferderoer north and by weſt ——— 23 leagues
From the Scawe to Otturen north and by eaſt, ——— 24 or 25 leagues
From the Scawe to Maelſtrand eaſtnortheaſt ——— 21 leagues
From the Scawe to Nudineck eaſt and by ſouth ——— 15 or 16 leagues
From the Scawe to Watersbergen eaſt ſoutheaſt ——— 19 or 20 leagues
From the Scaw to the Trendels ſoutheaſt ——— 8 leagues
From the Scaw, about ſeaboard, the Trendels ſoutheaſt and by eaſt 8 leagues
From the Scawe to Leſolde, or the north end of the riffe ſ. l. eaſt 8 leagues
From the Scawe to Leſon ſoutheaſt ——— 8 leagues
From Scaw to the ſmall Helmes ſouth and by weſt ——— 4 leagues
From the Scawe to Seabuy ſouth and by weſt ——— 9 leagues
From the Helmes to Seabuy ——— 2 leagues
From Seabuy to Aelburger-deep ſouth and by weſt ——— 7 leagues
From Aelburger-deepe to Mariacker ſouth and ſouth and by weſt 4 leagues
From Aelburgerdeep to Stevenshead ſoutheaſt and by ſouth 9 leagues
From Aelburgerdeep to Haeſlin ſoutheaſt and by eaſt ——— 20 leagues
From Stevenshead to Haſlin eaſtſoutheaſt ——— 13 leagues
From Stevenshead to the great Helme ſouthſouthweſt and ſouth and by weſt about ——— 6 leagues
From Stevenshead to the point of Ebelrud ſouthſouthweſt ——— 7 or 8 leagues
From Stevenshead to Syro ſouthſoutheaſt ——— 8 leagues
From the great Helme to Wero ſouthſoutheaſt ——— 4 leagues
From the great Helme to Sampſo ſouthweſt ——— 4 leagues
From the ſouth end of Ebeltud to Aerhuyſen weſt and by north and weſt ——— 5 leagues
From the Road of Sampſo to Ebelo ſouthſouthweſt, and ſand by w. ——— 3 leagues
From the ſouth end of Sampſo to the Iland Ebelo, the courſe is i.w. ——— 4 leagues
The northweſt coaſt of Fuynen lyeth ſouthweſt and by weſt ——— 8 leagues
From Endelaw to Melverſound ſouthweſt ——— 5 leagues
From Ebelo to Melverſound ſouthſouthweſt, ſomewhat ſoutherly ——— 6 leagues
From Sampſo to Roems ſoutheaſt ——— 5 leagues
From Syro to Roines ſouthſoutheaſt ——— 4 leagues
From by weſt Syro to Roems ſouthſoutheaſt and ſouth and by weſt ——— 9 leag.
From Wero to Bolſtack ſouthweſt ——— 4 great leagues
From Wero to Roms ſouth and by eaſt ——— 8 leagues
From Romps to Knuytshead ſouth and by eaſt and ſouthſoutheaſt ——— 7 leagues
From Knuytshead to Langeland ſoutheaſt ——— 4 leagues
From Knuytshead to the Iland Taſling ſouth ——— 4 leagues
From the ſoutheaſt end of Fuynen the eaſt point of Asken, weſt and weſt and by north ——— 5 leagues
From the point of Asken to the little Ilands of Areu and Tovea, weſt and by north and weſtnorthweſt ——— 2 leagues
From Areu to Melverſound northnorthweſt ——— 2 leagues
From the point of Ruſines in Zealand, to the Iland Syro, ſouth ——— 8 or 9 leagues
From Ruſines to Caſtcur ſouthſoutheaſt ——— 9 or 10 leagues
From Syro to Langeland ſoutheaſt and by ſouth ——— 4 leagues
From the north end of Langeland to the ſouth end ſouth ——— 8 leagues
From the ſouth end of Langeland, to the Iland Arr, the courſe northweſt and by weſt ſomewhat weſterly ——— 4 leagues
From the Iland Arr, or Koping, to the Roen, the courſe is n.w. & by w. ——— 5 leag.
From the Roen, to the little Iland Areu, weſt and by north ——— 3 leagues
From Areu to Aperade ſouthſouthweſt ——— 3 leagues
From the river of Aperade to the Strait of Sonderburg eaſt ——— 3 leagues
From Sonderburgh to the Sley, ſoutheaſt and by eaſt ——— 4 leagues
From the ſouth end of Langeland to Femeren, the courſe is ſoutheaſt and by eaſt ——— 6 leagues

How theſe Lands doe ſhew themſelves at Sea.



The fourth demonſtration,

Where in are portrayed how you ſhall ſayle from the Koll in the Sound, and forth through the Droogen, untill you come about Valſterboen, and further the coaſt of Holſten, Meklenburgh, and the Southern Ilands of Denmarck, from the Belt to the Telle.

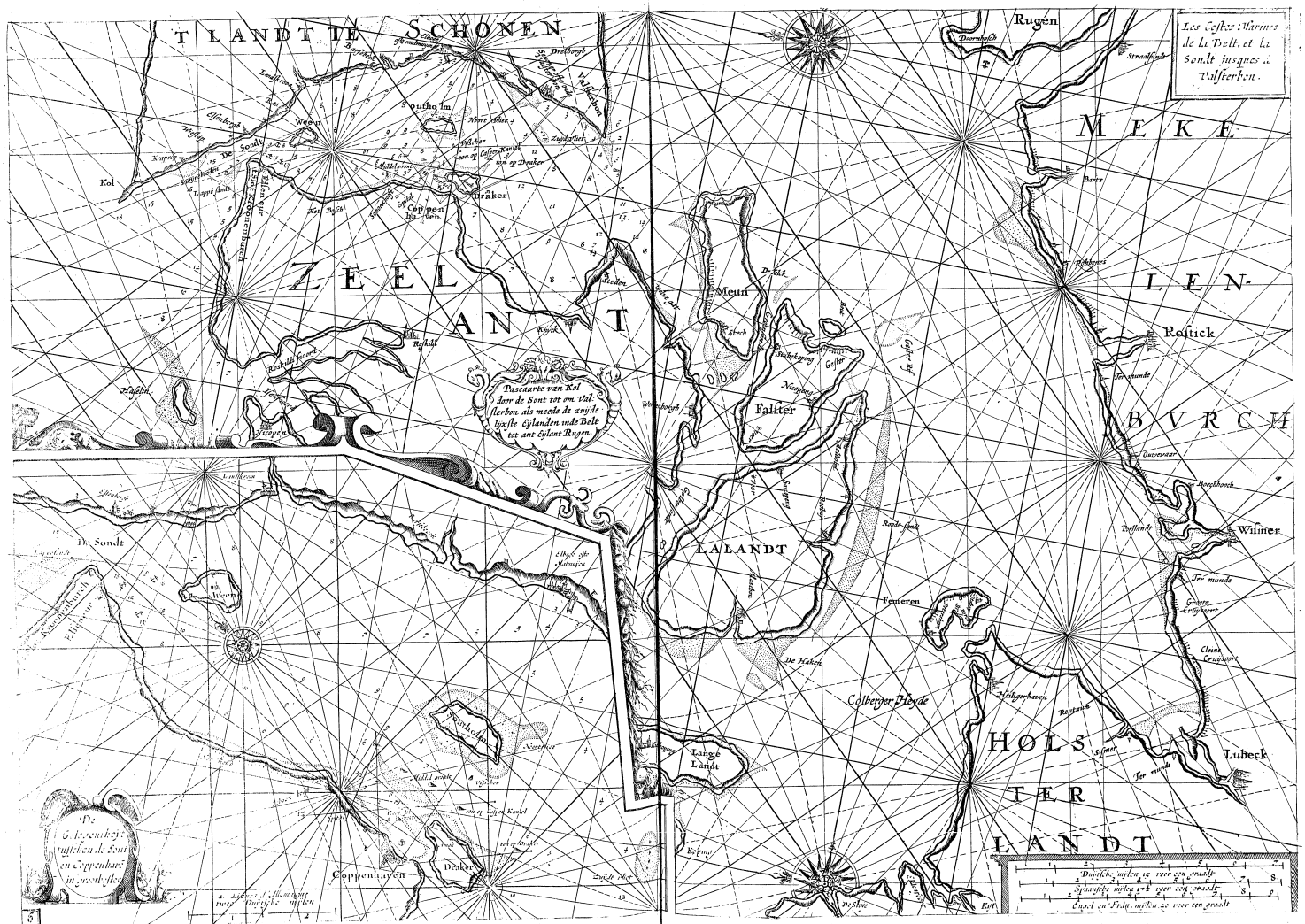
Haeſlin. FRom Coll to the Iland Haeſlin, it is ſouthweſt and by weſt eight leagues, you may ſaile through betwixt Haeſlin and Zealand, untill you come into the Belt: the coaſt of Zealand is a faire ſtrand, but ſomewhat to the weſtwards of Haeſlin, there ſhooteth of a riffe to ſeawards, which you muſt avoyd.

About eaſtſoutheaſt from Haeſlin goeth into the Land a great broad Sound, which without at the entrance of it, is a great league broad, there is good anckoring for a northweſt winde in five or ſix fathom. The Sound divideth it ſelfe within the land into three parts, the firſt or the eaſtermoſt, called Roskildiſiourd, goeth up ſouthſoutheaſt unto Rockil, the ſecond, called Heuvoert, lieth into the land ſouth, and South and by Weſt at leaſt or ſix leagues, unto Iſick by and Holbeck: within is at leaſt two leagues broad, and in the middeſt lieth a great Iland. The third lieth to Draeckholme alſo at leaſt five leagues ſouthweſt, and northeaſt, like the coaſt towards the Belt. The Coaſt of Zealand, betwixt Haeſlin and the Sound is a clean coaſt, you may ſaile alongſt by the Land ſix or ſeven fathom, but come no nearer to it by night then twelve or thirteene fathom, for at ſome places it is ſteep, and ſhouldeth up ſuddenly. Where that little new church ſtandeth, thwart of it, it is flat three and foure fathom, and to the Weſtwards of that wood which ſtandeth to the Weſtwards of Lapſand, you may come in foure fathom by the ſhoare, without taking hurt, but comming neare Lapſand, you muſt keepe further of from the ſhoare, in ſeven or eight fathome, or elſ you ſhould gette behinde the pointe of Lappeſand.

Roskil di. ſound. Heuvoert.

Lappeſand lieth about an Engliſh mile to the North wards of Elſenoore, or the Caſtel of the Sound, lying on the weſtſide of the faile waye, alongſt the coaſte of Sealand. For to avoyde Lappeſand you muſt be carefull of theſe marks, there ſtandeth a houſes to the weſtwards of the Kings mill, to the weſtwardes of the Caſtle of Cronenburgh, keep the Chimney of that houſe to the weſtwards of the front of the Kings mill, and then you can take no hurte of Lappeſand, then runne alongſt by it in ſix, ſeven or eight fathome, ſo long untill that the eaſt end of the Iland Ween cometh a little without the caſtle of the ſound, keepe that ſo ſtandingh, and ſaile ſo in ſixe or ſeven fathom ſomewhat cloſe alongſt by the caſtle: you may plainly ſee lying through the water al that can hurt you. Lippeſand

If you will ſhift roads out of the Sound, and anckor behinde Lappeſand, then ſaile thwart of the foreſayd Kings houſe called the Caux or Kings mill, ſo that it doe ſtande about ſouth or ſouth and by weſt or ſouth and by eaſt from you, anckor there in 6, 7 or eight fathom, there it is good lying out of the current and ſand ground: but if you will anckor in twelve, thirteen or fourteen fathome, there it is ſoft ground, and there goeth a ſtrong current with ſoutherley or ſoutheaſt windes, but you lye there better, in more roome, for to ſayle inwardes againe, if it ſhould happen that the winde did ſodenly ſhift out to the northweſt. It happened once to one of my acquaintance, that head anckored ſomewhat to the eaſtwards of the Kingsmille, in ſixe or ſeven fathom and the winde did ſhift in the night to the northweſt, when they weighed their anckor the ſhippe fal towards the land, and before they coule get the ſhip about For to anckor behinde Lapſand.


T LANDT TE SCHONEN
Rugen
Les Costes Maritimes de la Belt, et la Sondt jusques a Valsterbon.
MEKE
LEN-
BVRCH
ZEELANT
LALANDT
HOLSTER LANDT
Pascaarte van Kol door de Sont tot om Valsterbon, als mede de zuijdelijxste Eylanden inde Belt tot ant Eylant Rugen
De Sondt
Kol
Graker
Coppenhaven
Drake
Falster
Meun
Rostock
Wilmer
Lubeck
Femeren
Colbergher Plevde
Langeland
De Gelegenheyt tusschen de Sont en Coppenhaven in oost-west
Duytsche mijlen 15 voor een graedt
Spaensche mijlen 17½ voor een graedt
Engel en Fran. mijlen 20 voor een graedt

about before the winde, they did runne in three fathom over the point of Lappesand.

From Coll to Elleneure or the Sound the course is south-east, and southeast and by south four or five leagues. About halfe wayes betwixt Coll and Elsenburgh lye the Swyneboeden, which are some foule rocks, and suncken rockes, which lye of to seawards a good wayes from the land. But when you sayle towardes the Sound comming from Coll, then keep the Iland Ween hidden behinde the Castle Cronenburch, and then you can not fail foul of the foresaid Swyneboden, when that you reckon that you are past them, then runne in amidst the channell, for to avoide Lappesand, or els if you bring the end off Ween then again right without the castle, or keepe in seven or eight fathom from the Sealands side, you can not take hurte of Lappesand, when you are come within the castle, you may anckor where you please. The shippes doe commonly anckor all alongst by the land untill to the southwards of Elseneure, there it is fifteene and sixteene fathome deepe, but with a southeast winde it is badde lying there.

Swyneboden.

For to avoid Lappesand.

Towards the Iland Ween lieth a banck of eight or nine fathom it is better lying there, but is somewhat farre from the land.

For to sayl out of the Sound.

When you will sail out the Sound towards Col, and are come to the end of Lappesand, then goe northwest and by west for to avoide the Swyneboden, untill that Coll be northnortheast from you: then goe boldy northwest and by north, or northnorthwest, according as the winde shall be, for with a northeast winde, you must runne out northnorthwest verie close alongst by Col, for to sail a weather of the Riffes of Anout and Lesan.

For to saile to Elleboge or Malmuyen, and Lands kroone.

If you will sail out of the Sound to Elboge or Malmuyen, goe from Ween southeast and southeast and by south, and then you shal see the steeple or the towne lying before you, sail towards it, in that farewaye, it is most seven or eight fathome deepe: when you come within the south-holms, it will be 5 or sixe fathom deep, it doth shoulde up sodenly, from the seven fathome to five, but before the towne it is shoulder water, you may anckor there in three, four or five fathome if you will, you may lie also at the end of the Head, in three fathome, there it is good lying, but with a northwest winde it is a bat roade, for it bloweth there open in.

If you will runne out againe to the southwards of the South-holmes towards Falsterborne or Steden, you must take heed of the South-holmes, which are foule round about. From the n. end shooteth of a riffe a great wayes: Upon the east side, at the south end, it lieth verie farre off should, there lyeth also the Northvliet, that is a ledge of rocks under water, but you may perceive it through the water, you shall leave it on the South-holms side, to were, on the starboard side of you: but the Southvliet, which lieth thward of old Falterborne, you shall leave on the larboard side, and so runne through betwixt then, it is in that fareway at the shoulde 4 four fathome deep. When you come off from Malmuyen, and that the steeple of Coppenhaven come to the S. end of the south-holmes, then you are past the Northvliet. When you saile thus there through, you must be verie carefull to avoide thefe foresaid grounds. You may runne out also alongst by the strand of Schoonen, and leave both the Northvliet and Southvliet lying on the starboard side: you may found that strand in four and five fathome, as also the riffe of Falterborne.

Northvliet

Southvliet

He that will sayl into Landscroone, must know that there lieth a shoulde before the havens mouth, & must runne in about to the southwardes of it: there standeth a litle church on the north side, by the water side and a Gentlemans house somewhat farther within the land, bring that church over the house, and then you are cleare of the shoald, then saile in right with the poynt, and anckor in three fathome.

Landscroone.

To the northwards of old Falterborne goeth in a deepe, called Hull or Hulwater, it is a deepe haven for ordinarie ships, which goeth in must northeast in three or foure fathom, you may found it in alongst by the foot strand of old Falterborne in three fathom, leaving old Falterborne on the starboard side, it is there large and broad enough.

Hulwater.

How men shall saile out of the Sound, through the Shouldes or grounds, and into the Reefsbol.

He that will sayle out of the Sounde towardes the Shoulder or Grounds let him goe on south and by east, or hee may found alongst by the wood, in five or sixe fathome and then he shall not faile misse of the Norther buye, for it lyeth in five or six fathom, on the north end of the Middle ground, to the eastwardes of the buye it is seven fathom deep, but in the right farewaye thwarte of this buye it is nine or tenne fathom deep: the markes of this buye are, when that end of the wood is westsouthwest from you, then you are thwarte of the norther buye, & there standeth then a flat steeple, a pretie wayes to the S. wards of that wood: there cometh also three hommocks to the north side of the town, these are all marks of the norther buye.

ther

From the Norther buye to the middlebuye the course is south and by east. When you come by the Middlebuye, then commeth the southermost mill on to the southwardes of the towne op Coppenhaven, and the flat steeple commeth within a handspikes length unto the sharpe steeple, that are the markes of the Middle buye, or fecond buye in the shoulder or grounds, it is there eight and nine fathome deepe.

Middlebuy.

From the Middle buye to the third, and for to the buye upon Casper Caniell, the course is south and by east. When the white castle commeth over the sharpe steeple, that are the markes of the fourth buye, or the buye upon the Casper Caniell, the third lieth at the south end of the Middle ground, it is not there verie broade, but steepe on both sides, the deepe thereabouts is seven or eight fathome: If you must turne to windewards there, you must east about, so soone as is doth begynne to shoulde, as well on the one side is on the other.

Third buy.

The fourth buye lieth on the north end of Draecker upon the flat, over against it lieth a rock above water, called the Fisher, east & by north from the buye, ther you may wel found the foutholme, for it is there should water. Betwixt the third & this fourth buye commeth running out a channell from Copenhaven, which men doe cal Casper Caniel, or the Kingsdeep.

Fisher.

Buye upon Casper Caniell.

From the fourth buye or Casper Caniell, to Draker riffe, the course is south, and south and by east: the land of Draecker you may found in three, foure, or foure fathome and a half.

Riff of Draker.

The Riffe of Draecker lieth a good wayes without Draker, it lieth off half a leagne east into sea. The markes of the buye upon Draker-riffe are these. When the steeple of Copenhaven commeth to the southwards of Draker to the wood, then you are thwart of the buye. The shouldest water that you shall finde betwixt this buye upon Draecker-riffe, and the foresaid fourth buye, is five Fathom lesse two foot. For to sail by night through the shoulds or grounds, go from the Iland Ween south and south and by west, so long untill that you come thwart of the point of the wood in 4 fathom, then keep somewhat off from the shore, and go on southeast and by east, untill that you come in 7 fathom, and then forth southsoutheast, untill you be over the Middle-Ground, the first or northermost buye, as is beforesaid, lieth in five or sixe fathom, but you may well go over to the westwards of it, in three or foure fathom, keepe then somewhat off untill that you come in eight, nine, or ten and eleven fathom, and sail then on south into Casper Caniell, there it will be by litle and litle shoulder, to wit, about eight fathom. Thwart of Draker it is unevenfor to found, the one east five & the other foure fathom, but go your course, except you knew that you were neerer the one shore of Draker, or the Southolmes, then the other, Without Draker it will be againe 6 and 7 fathom deep.

For to saile into Riisholl or Copenhaven, comming from the northwards out of the found, runne along somewhat to the westwards of the Norther buye, for to avoid the plate, or Middle ground, which lieth to the westwardes of the buyes in the shoulds, which upon the north end is not deeper then 12 foote, and on the south end eight, nine, and at some places ten foot deep, al hard stony and rocky ground, keepe the founding of the shore on the west side in two, three, or foure fathom, so deep as you please, untill you com before Copenhaven, on that side you can take no hurt, it is there bread and wide, and lieth in south and by west, in the middeft betwixt the shore and the Middle-ground, it is 5, 6, and 7, fathom deep. If you should turne to windwardes there, to come not neerer the middle-ground then in foure fathom but, the west shore you may runne to by may runne to by your lead, as you please.

From the north end of the Iland Draecker runneth off a riffe to the northwards, upon the point off that riffe lyeth a buye, which men do call the buye in the Reefsholl, leave that on the larboard side, & run in, until you come before the towne, and anckor there. If you come from the fouthwards, and wil sail unto Reefsbol, then run alongst to the eastwards of the foresaid fourth buy (which men do call the buye upon Casper Caniel) then loofe up prefently about by it, and go on N. W. into the Kingsdeep, unto the buye in Reefsholl, which lie one from the other due northwest, and southeast: you shall then also see eight out a head, in the northwest within the land a flat steeple right over a great house or Hospital, that standeth close upon the sea-side, keepe them so one in the other, and sayle right

Buye in the Reefsholl.

in with them, and so you shall runne in right amidst the channell, it is there in the farewaye, five, fixe, seven, and eight fathom deep. This Kings-deepe is somewhat uneven of ground, therefore be careful in using of the lead, and come not to neere the north side; that is the Middle-ground, which is very foule and rocky: from the S. shore (about halfe wayes betwixt the two foresaid buys) it lieth of somewhat should, so that you shall have at one cast five or sixe, and the other but 3 fathom.

When you come by the bay in Reefsholl, which lyeth upon the point of the norther riffe of Draecker, leave that on the larboard side, and runne on south about by it unto Copenhaven. The markes of this buy are these: there lieth a round hommock or great rock about halfe a league within the land, when that is right e, from you, then it cometh right with a flat steeple which stands about a league within the land, then you are even thwart of the buye, or point of the foresaid riffe. These marcks will serve at times when the buye lieth not there. A little to the northwards of that buye lye the great ships which taray for wind in 5 or 6 fathom, there is good anckor ground.

Markes of the buye in the Reefsholl.

Kuyck.

From the buy upon Draker-riff unto Kuyck the course is S.W. 5 great leagues, but unto the riffe of Falsterborn, or Steden it is south and south and by west 5 leagues, in the fareway betwixt Draecker and Falterborn it is 6, 7, and 8 fathom deep, but between Fasterborne and Steden, 10, or 12, and 13 fathom, but by Steden deepest.

Road under Steden

Under Steden you may anckor as well to the southwards of it, for northerly, as to the northwards for southerly windes. If you will anckor for northerly winds, then run in betwixt Steden and Meun, a good wayes into the bay, so that the steep point of Steden lye about northnortheast from you, anckor there in eight or nine fathom, and you shall lye land-lockt for north and northwest winds.

But if you will anckor for south or southwest winde, then anckor to the northwards of Steden, so that the southeast point be south and by east, or southsoutheast, and the N. W. point northwest or westnorthwest from you, there it is good lying in seven fathom, the ground is there small white and blanck sand. If you wil set saile from thence to the shoulds or grounds, then go not more northerly then northeast, so long untill that you come by the riffe of Draker, then run about by it in five fathom.

To the northwards of Steden the coast of Zealand goeth in with a great bay into Kuyck, it is there all to the westwards should water or five, fixe and seven fathom, and good anckor ground, so that you may anckor every where there abouts.

Marcks of the riffe of Fasterborne.

The riffe of Fasterborne lieth off southwest to Seawards a league and a halfe. It is a fowle stony and rocky riffe upon the end of it lieth a buye in foure fathom. You may run about by it upon your lead in five fathom with small or ships off little draughts. Men doe hold for a mark of this riffe that when the steeple of Fasterborn and the castle come one in the other, that then they are thwart of the point off the riffe. He that commeth from the northwards, and will saile about Fasterborne with a northerly or northeast wind, and that he wil come somewhat neere about the riffe, and commeth in five or sixe fathom he must be very quick in using the lead. When old Fasterborne Church commeth halfe wayes to the Castle and the Church off Fasterborne, then beginneth to come the worst and shouldeth off the riff, that lasteth untill that old Fasterborn church cometh to the eastwards of the houses of Fasterborne, before that you are not past the riffe. If you should lasse up sooner about by it, you should run in great danger with a ship of great draught, you shall have (comming against the riffe) the one cast four or five and then presently three fathom upon it all hard stony ground. Therefore it is best with a ship that draweth 12, or 14 foote, to come no nearer this riffe then in 6, or 7 fathom.

If (when you come from the eastwards) you will saile about Falterborne, and come alongst the shore with a northeast wind in sixe or seven fathom, and Falterborne is about north, or northnortheast from you, then is shouldeth up very fast in two fathom, or two fathom and a halfe. Therefore keepe you ferther off from the shore in 10, or 12 fathom, so long untill that the castle bee northeast, or northeast and by north from you: or that old Falsterborne church come halfe way to the castle of Falterborn and Falsterborn church, then you can not saile upon the riff from the eastwards, but running about by it in five fathom, then you must be very carefull in using your lead. But if you wil come neere the riff in foure or five fathom, when old Falster-born Church commeth too the east end. Falsterborn, you shall run in great danger for to come on ground. When you come within the riffe, you may run alongst by the coast of Schoonen in four fathom without taking hurt.

To the southwards of the Sound of Flensburgh, lye yet three Sounds or rivers, where great ships may goe into, to wit, the Slei, Nyllhofvoere, and the Sound of Kiel, the land lyeth of from Flensburgh to Kiel southsoutheast or somewhat more easterly sixe leagues.

The Sley.

From Sonderburgh to the Sley the course is southeast and by east 4 leagues, that is, a broad deepe sound, lying in first about west, and when you are within it, then it runneth in about southwest and by west past Sleeswyke, there also come out many great ships. The town Gottorpe lyeth also upon this river.

Betwixt the Sleye and Ciel lieth Nyllhofvoert, upon it lieth a litle town called Eeckeleufoort.

Nilhofvoere. Kiel.

The Sound of Kiel is a broad Sound, which lieth in about southwest, there you may go in also with great ships. From Kiel to the west end of Femeren it is east and by north about eight leagues.

Fernerens

From the Poles riff to Femeren (over the Coelbergher Heyd) the course is eastsoutheast 13 or 14 leagues, but from the south end of Langeland unto Femeren it is southeast and by east 7 or 8 leagues. The channell betwixt Femeren and Laland is 5 and 6 fathom deepe, you may saile round about Femeren, there it is all should ground. Betwixt Femeren and Holiterland, you may run through in 8 or 10 foote, there lieth a litle town, called Heyligher haven, where you may anckor with ships of small draughts from to lade wheat or barley. From the Iland Femeren to Gesterriff the course is east and by north ten leagues. But from Femeren to the Trave of Lubeck S. S. W. ten leagues: there goeth in a good Deep for great shippes, it is deep upon the banck 12 foot water.

Heyligerhaven.

There is also great bay and a good haven, where men may lye safe for all winds, except the northeast and northnortheast winds. From the Trave of Lubeck to Gester-rif the course is northeast and southwest about nine teene leagues.

From the Trave of Lubeck to Wismerdeep the course is first northeast and by east, and then east northeast, there goeth in a faire deep for all sorts of ships.

Deep off Wismer.

For to saile in at the deep of Wismer, bring the steeple upon the south land south from you, and saile so in untill that the steeple standing upon the eastland, by that eastermost house, commeth to the five or sixe houses, by these houses stand some trees together, from that eastland runneth off a litle riffe, lying off northwest and by north from it, when the steeple commeth to those houses, then goe in southsoutheast, in that deepe is twelve foot water. In the Summer there lye two buyes in the havens mouth, the one upon the tayle of the sand that shooteth off from the eastland, and the other upon the should ground, you must run in betwixt them. This deep of Wismer lieth from Femeren south and by east distant about seven or eight leagues, but from Wismer to Gester riffe, the course is northnortheast, twelve or thirteene leagues.

Rostier.

About south from Gester riffe lieth Rostick, there goeth in also a good deepe of ten foot, it is there very flat, you may found it in on both sides with the founding poll. Wismer and Rostick lye about eight or nine leagues asunder.

Somewhat to the eastwards of Rostick lieth a high land called Robbeneffe, from it shooteth of a great riffe or should too seawards, towards Gester riffe, it is betwixt Gester riffe and that should not deeper then twelve or thirteene fathome. If you come neareft to Gester riffe, then it doth should up sodenly, but if you come neareft this should, then it shouldeth by litle and litle. Gester riffe, as hath been beforesaid, is a should riffe, and runne off at leaft 3 leagues into sea.

Robbenes.

A litle to the eastwarde of this foresaid should lieth Barts, there goeth in a deepe of 6 foote, at the west point goeth of a riffe, which men muft avoide.

Barts.

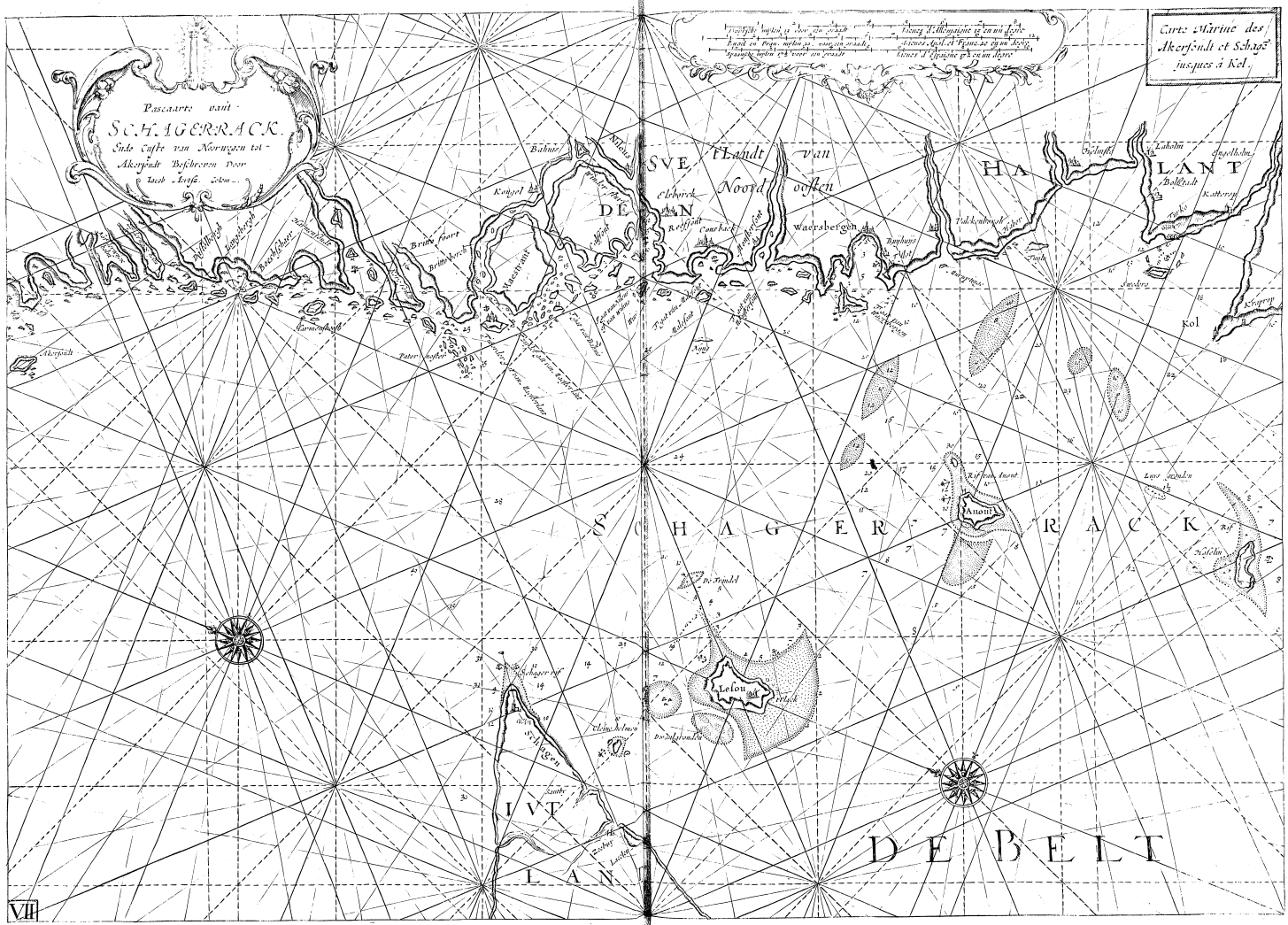
Three or four leagues to the eastwards of Barts goeth in the Jelle, there men doe goe into Mesond, or Straelfound there is no more then sixe foot water. In the Jelle lye three buyes, which you muft leave al on the ftarboard fide, being paft them eaftwards, up unto the beakon upon the Iell, you muft loofe up about by it, and faile to the middle plate, which you muft leave alfo on the ftarboard fide, and then fouth and by eaft unto Straelfouad. Within the mouth of the deep, it is 12 and 14 foot deep.

The Iele.

The Iland Langheland is about eight leagues long, and lieth fouth and north, to the eaftwards, over againft it lyeth the Golverfound, lying into the northwards of Laland, all alongft up unto Neftvelt and Wordenborgh and commeth into the Greenfound, and into the Wolvegat, and again into the Eaft fea: Before the Golverfound lie three litle Ilands the one at the point of Laland, which is called Wedero, and is alfo faft to it with a riff, fo that men can not fail through there betwixt them,

Golverfound.

Wedero.


Pascaarte vant
SCHAGERRACK.
Carte Marine des
Akersondt et Schagᵉ
jusques à Kol.
Kullen
Hallandt
Noordoosten
Waersbergen
Kattegat
Anholt
Lesou
Kol
Hallandt
DE BELT
SCHAGERRACK
JVTLANT

them, to the northwards of it men doe runne into the Golver-found, leaving that Iland on the ſtarboard ſide: the other two lye to the northwards of the foreſaid Iland of Weſtero, the one is called Arnis, and the other Ooms. Ooms is a little playne Iland, but Arnis is the greateſt, which lyeth neareſt to Zealand, and is full of trees. From the Iland Ooms, lyeth off a riffe ſouth weſt to ſeawards, which is a great league long, and upon the end flatte, which men may runne over by the lead. When you will ſayl into the Golverſound you muſt leave theſe two Ilands lying on the larboard ſide. The Iland Laland hath upon the weſt poyot over againſt the ſouth end of Langeland, a riffe or Hooke, lying off from Laland at leaſt half wayes over the Belt: for to avoyde that, you muſt runne alongſt within an Engliſh mile to the eaſtwards of Langeland, or when you leave the two third partes of the water on Lalands ſide, and the other third part on the ſide of Langbeland, you ſhall not come too neare it. When you come from the ſouthwards, and are bound into the Belt, and that then the ſteeple of Maſcou, which ſtandeth upon Laland commeth to ſtand northeaſt and by eaſt from you, then you are paſt that riffe, and lyeth to the ſouthwards of you: It is here in this channell betwixt Laland and the ſouth end of Langeland, five, ſixe, and ſeven fathome deep.

Arnis Ooms.

Riffe on Laland.

From the ſouth end of Langeland to Femeren the courſe is S. E. and S. E. and by eaſt diſtant 7 leagues.

When as you come off from Langeland and are paſt the riffe or Hooke of Laland, then the ſouth coaſt of Laland lieth eaſt and weſt: alongſt by it lyeth a ſand, which is called the Red-ſand, and lyeth alongſt untill before Calverſound which runneth in betwixt Laland and Gefter.

Redland.

To the northwards of this ſand is a rode of 14, 16, and 18 foot water, before the little townes of Aelholm and Roobuy, where men do lade nuts and Barley.

Aelholme Roodbuye

Betwixt Laland and Gefter, thwart of this redde ſand (as hath been ſayd) runneth in the Golverſound, which men may run into, and come out againe to the Belt, but in this ſound or channell there is little depth, there lyeth a ſtonebanck within thwart over the channell. The little town Nicoppen lieth upon the Iland Falſter a league within Gefter. From Gefter ſhooteth of Gefter riffe, at leaſt three leagues into ſea, which is a ſhowld riffe.

Nicoppen

Geſter-riff.

Bout.

To the eaſtwards of Gefter riff lieth an Iland called Bout, it is there abouts all ſhould water; to wete, 3 and 4 fathom.

To the eaſtwards of Bout goeth in the Green ſound, by the little towne Stuybekuype, and commeth out ahain into the Belt to the northwards of Laland: the Green ſound lyeth in about weſt and weſt and by north in three fathom, there lyeth a ſhowld on the larboardſide of the mouth of the Sound, called the Tolck, which men muſt avoyde: you muſt goe in to the eaſtwards of it, you may lead it in alongſt by the land of Meun, in 14 or 15 foot, that foreſayd town Stuybekuype lieth about a league within the mouth of the chaunel.

Green-ſound.

Tolck.

Stuybe-kuype.

From Gefter rif to Meun, the courſe is northnortheaſt eight leagues: but from Bout to Meun it is northeaſt about 7 leagues

From the Golverſound to Meun, the land lieth in a bay, you may anckor there for a northeaſt, north, northweſt, and weſt winde, in five and ſix fathom.

He that commeth out of the Sound, and is bound to the ſouthwards of Meun, may come ſo near Meun as he will, and looſe up to the weſtwards by the poynt, and anckor where he pleaſe, in five or ſix fathom. On the north ſide of Meun you may alſo anckor in 6 fathom, be inde a little riffe that ſhooteth of from the north point, for an eaſt, S. S. W. and weſt wind, it is there all over flat, and good ground.

From Meun to Steden, the courſe is northweſt and by north 4 leagues, betwixt them both goeth in the Wolfſound, or Wolvegat, that runneth paſt Werdenborgh and Neſtveld through the Golverſound out into the Belt.

Meun and Falterborne lye north and by eaſt, and ſouth and by weſt five leagues aſunder.

Of the ſtreames on theſe coaſts.

Through the Sound and the ſhowldes or grounds, the ſtreame runneth comonly with the winde, but the moſt part of the time to the northwards, before the comming of a hard eaſt winde, or when it hath blowne out of the eaſt, then the ſtreames runnes ſtill out the ſouthwards.

Courſes and Diſtances.

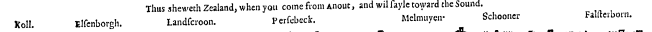
From Koll to Elſeneur the courſe is ſoutheaſt, and ſoutheaſt and by ſouth 4 or 5 leagues

From Lapland to Ween ſouthſoutheaſt	3 leagues
From Elſeneure too the northerbuye in the ſhowldes or grounds, by eaſt	ſouth and 6 leagues
From Elſeneur to Landſcroon eaſtſoutheaſt	4 leagues
From Ween to Malmuyen ſ. e. and ſ. e. and by ſouth	6 leagues
From Malmuyen to Reef-holme weſt	1 leagues
From Malmuyen to Steden ſouthſouthweſt	8 leagues
From the buy upon Draker-riffe to Kuyck S. w.	5 great leag.
From the buy upon Draker-riffe to Steden, the courſe is ſouth and by weſt 5 great leagues	
From the buye upon Draker-riffe to the buye upon Falſter-bornes-riffe, the courſe is ſouth	5 leagues
From the ſouth end of Langeland to Femeren, the courſe is ſoutheaſt and by eaſt	7 or 8 leagues
From the Foolsriffe, lying on the Iland Aelſt to Femeren, the courſe is E.S.E 13 or 14 leagues	
From the Sley to the Kiel ſoutheaſt	4 league
From Kiel to Femeren, the courſe is eaſt and by north	8 leagues
From Femeren to the Trave of Lubeck ſouthſouthweſt	9 or 10 leagues
From the Trave of Lubeck to Wilmerdeepe, the courſe is firſt northeaſt and by north and then eaſtnortheaſt in all	9 leagues
From Roſtick to Robbenes, the courſe is northeaſt	5 leagues
From Robbeneſſe to Doornboſch northeaſt and by eaſt	7 leagues
From Femeren to Wilmerdeep, ſouth and by eaſt	7 leagues
From Femeren to Roſtick, e. ſ. e.	8 or 9 leagues
From Femeren to Geſter-riffe eaſt and by north	9 leagues
From the Trave of Lubeck to Geſter-riffe northeaſt	19 leagues
From wilmerdeep to Geſter-riffe northnortheaſt	12 or 13 leagues
From Roſtick to Geſter-riffe the courſe is north	7 or 8 leagues
From Geſter-riffe to Dorneboſch eaſt	9 leagues
From Geſter to Meun northeaſt	7 leagues
From Meun to Steden northweſt and by north	4 leagues
From Meun to Vaſterborne north and by eaſt	5 leagues
From Meun to the buy upon Falterborn-riffe north	4 or 5 leagues

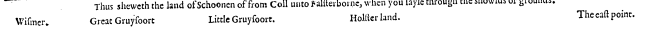
How theſe Lands doe ſhew themſelves at ſea.

Thus ſheweth the land and the church of Aelſt, when you are 2 leagues and an half by eaſt Aelburger-deep.

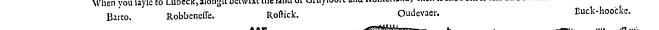
Thus ſheweth Zealand, when you come from Anout, and wil ſayle toward the Sound.



Thus ſheweth the land of Schoonen of from Coll unto Falſterborne, when you ſayle through the ſhowlds or grounds.



When you ſayle to Lubeck, alongſt betwixt the land of Gruyſoort and Holſterland, then it ſheweth it ſelf on both ſides thus.



Thus ſheweth the Coaſt of Mekelenburgh, betwixt Gruyſoort and Doornebosh, or the Ielle, when you ſayle alongſt by it, a league without the land.

The fifth demonſtration,

Where in are ſhewed the Coaſt off Norway, betwixt Akerſound and Koll.

Akerſound.

Graſwyke

FRom the Siſter to the Iland of Akerſound, the courſe is weſt and by north 4 leagues, betwixt them lyeth the Graſwycke, within the Siſters, lying from Farder eaſt North Eaſt about 7 leagues. When you will ſayle in there, you muſt leave the ſharp point on the larboard ſide, within lieth a round rock, whiced you may ſayl about on both ſides, thwart of it is good anckorground. North from this rock lyeth a great Bay, fit for ſhips to lye in, that tarrie for a winde, within

within lyeth also a round rock. Men do run in alongst by the weſt land, which lieth in firſt north, and about the Iland north-northeaſt, they leave the Iland on ſtarboard ſide, and run in N. N. W. by the weſt land. To the eaſtwards of Graſwike, alſo betwixt the Sifters and Akerſound lieth Shiphill, that is a Haven where men lade Spars and fat wares.

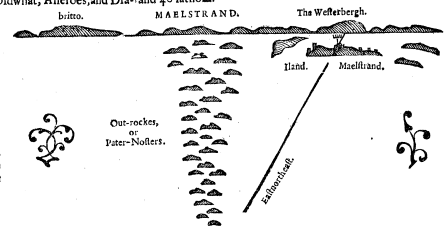
Ottrom. The Iland Akerſound men may ſayl round about it, to the northwards of it lieth a great Bay or Sound, lying in farre within the Land, called Ottrom.

Norther-wixholm. To the ſouthwards of Ottrom lie Northerwixholm and Southerwixholm, 2 great Ilands, in a great ſound, which lieth far and deep within the land, upon it (far within the land) lie many little townes, as Oldburgh, Oldwhat, Alleroes, and Dragens, from thence commeth much fat ware. Southerwixholm and the Iland Akerſound, lie northweſt and by weſt, and ſouth-eaſt and by eaſt 5 leagues aſunder.

From Southerwixholme to Harmanſhead, the courſe is S. ſoutheaſt 5 leagues, betwixt them lieth Boechſchaer, but two leagus to the ſouthwards of Harmanſound lieth Kerckſound, Which is a great river, which lieth in far within the Land.

Harmanſhead and the weſt-end of the rockes (which men do call the Paternoſters) lie north and by weſt and ſouth and by eaſt 5 leagues aſunder, to the ſouthwardes of them men do laile into Maelſtrand. Upon the coaſt betwixt Farder and Maelſtrand, is almoſt every where good anckorground in 35 and 40 fathom.

Pater-noſters. THe Pater-noſters are a great raue of Rockes, which lie farre off to ſeawards from the Coaſt, behinde them, to wit, on the ſouth ſide, goeth in, within the land a broad ſound, upon the ſouth-ſide of it lieth a great high round rock or hill, called Britto. To the ſouthwards of that ſound lieth the Iland of Maelſtrand. He that cometh from the Scaw, and deſired to ſail to Maelſtrand, let him go on eaſtnortheaſt, and then he ſhall get ſight of the foreſaid hill Britto, which he ſhall ſee eaſtnortheaſt from him, and ſaile ſo in right with it, until that he commeth by the Pater-noſters, he muſt leave on the ſtarboard ſide, and ſaile alongſt by them eaſtnortheaſt, and eaſt and by north, and then he ſhal runne in ſight of the Iland Maelſtrand, upon which ſtandeth a great ſtony beacon, or Warlock, where ſometimes ſtandeth a maſt with a barrell upon it, and ſometimes alſo there ſtandeth none. You may run in on both ſides the Iland, either about to the northwards, or to the ſouthwards of it, according as ſhall be beſt fitting for the wind: If the winde be at weſt or ſouthweſt, then you may beſt run in at the norther-channell, or if the winde be at ſouth, or ſoutheaſt, then it is beſt to runne at the ſouther channell. The norther channell lieth in by the ſouth ſide moſt eaſt and by ſouth, and e. ſ. eaſt, but the ſouther channel eaſt and eaſt and by north. When you come within the Iland, you may ſaile about by it, untill you come before the towne, which you ſhal ſe then lying before you. Men doe ankor there with an ankor to ſeawards out a head, & make faſt a cable out a ſteame on the kaye, lying ſo wit the ſteame to the ſhoare.



About the middeſt, going in at the ſouther channell, lieth a rock above water, which you may ſail about on both ſides, but within that rock lieth a ſuncken rock under water, and to the ſouthwards of it alſo a great rock, but a little further out then the other. There lieth alſo a ſuncken rock under water by the Iland on the north ſide of the foreſayd rock with lieth above water, which men muſt be very careful to take heed of. There is every where good anckorground. From thence you may ſail through within the rocks to Calf-ſound, Bahouſe and Nilus.

Calffound Calf-ſound lieth diſtant from Maelſtrand about foure leagues. For to ſail in there out of the ſea, you muſt runne alongſt to the ſouthwards of a great rock, whereupon ſtandeth a Warder. On the ſouth ſide of the Havens-month there are great rocks, but on the north ſide all ſmall rockes. When you come within the rocks about the poynt of the northland, there you may anckor in 15 or 16 fathom, there is good anckor-ground. From Calffound you may run up to the ſouthwards, through within the rock unto the rivier of Nilus.

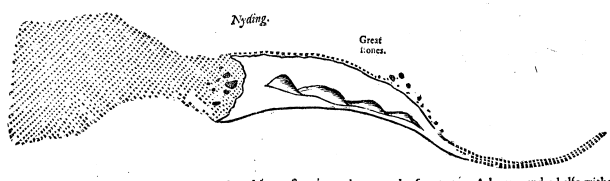
Four leagues ſouthſoutheaſt from Calf-ſound, lieth the Iland Winneu to the ſouthwards of it goeth in the channell of Nilus or Gottenbergh, which is a large and broad ſound, lying in n. n e. in 8, 9, and 10, fat on, you muſt leave Winneu on the larboard ſide, and run in betwixt the poynt of the main land, called Kalderhead, and the Iland little Denmarck, and then in alongſt by the main land on the ſonthſide untill paſt Elsburgh to Gottenburgh, it is there all cleane and cleare without any danger that might hurt you. Gottenbergh.

You may alſo ſaile into the northwards of Winneu, then you muſt leave Winneu, and alſo ſome long rocks on the ſtarboard ſide, and the through Iland or little Denmarck, on the larboard ſide, & then in alongſt by the point of the main land, on the ſouth ſide, as is before ſaid.

Two leagues ſoureſoutheaſt from Winno lye Maelſound and Conſback: Maleſound is a rough Iland, which you may ſaile round about in ſeven or 8 fathom, under it is alſo good road. Two cables length weſtnortheaſt from Maleſound, lyeth a ſuncken rock under water, and alſo one even with the water, a bow ſhot from the land, whereupon ſtandeth a Warder. Maleſound.

Eaſtnortheaſt from Maleſound lyeth the haven of Conſback, there ſtand two great Warders, each upon a rock cloſe to the land, betwixt them lyeth in the haven, it is a fayre haven, ten fathom deep, and good anckor-ground, when you com about the low point you ſhall ſee Conſback lye to the northwards of you. Conſback

Nyding.



From Maleſound ſouthweſt and ſouthweſt and by weſt, a great cagme to ſeawards, lieth the ſewle and dangerous ſeck Nyng or Nijding: The land upon Nyng is at out a halfe league long. The riffe on the north end runnes till about a league or the land northeaſt, and is halfe a league bread, wholy riffe, with ſharpe ſtones. Upon ſome places 8, 7, 5, and 4 foot water. The taile, which ſhooteth ſoutherly downe, is narreuw, and runneth from the land northeaſt about 2 leagues: There upon is 5, 4, and 3 foot water. A league and a halfe without Nynger-Riffe, northweſt, men may ſtay upon 6, and 7 fathom. You may ſaile through betwixt Nyding and Maleſound, or the mayn land, but it is there all ſtallow water. Upon Nyding is a fire-bescon, where upon they make fire every night.

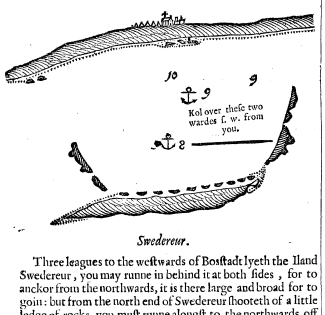
From Nyding to Waterſ bergen the courſe is S. E. 5 leagues, betwixt them (three leagues to the ſouthwards of Maleſound) lieth Monſterſound, that is a river or Sound, which Monſterſound. Waters-bergen.

which runneth up into the land, upon it lye ſome townes as Vlymenes, Horn, and Goſewater. From Monſterſound three leagues to the ſoutwards, lieth Watersbergen. For to ſayl in there, you muſt run in by the eaſt land. At the point of the Iland which lyeth on the northweſt ſide before the haven, lieth a rock under water, and from the poynt where the caſtle ſtandeth upon, lieth alſo a ſunken rock, but which you muſt avoid, and therefore run in amidſt the channel, betwixt the foreſaid Iland and the mayne land, where the caſtle ſtandeth upon the poynt, and anckor when you come within the point right againſt the caſtle in 4 or 5 fathom. For to ſaile into Watersbergen by markes, you muſt bring Old boey to the N. ſide of the caſtle, and goe on N. N. E. there lieth a rock even with the water, which you muſt leave on the ſtarboard ſide, and anckor right againſt the caſtle in 4 or 5 fathom as before is ſaid.

Valckenburgh. Two leagues to the ſouthwards of Watersbergen lieth the river of Valckenburgh. On the north ſide of the Rivers mouth lieth an Iland, called Murupting, and three leagues to the S. wards of it, lieth an Iland called Tullo, betwixt that Iland and Valckenburgh, within the land, lieth a high hill, called Haver, being whito to ſee to, as if it were ſandy Land: ſea fearing men doe name it yong Coll, becauſe of the likeneſſe of height and faſhion, which it had like Col, and ſometimes it is miſtaken for Coll. Tullo.

Helmſtee. Three leagues eaſtwards from Tullo, lieth Helmſtee upon a river, but there can go in no ſhips, but onely huyes & boares.

Laholm. Two leagues ſouthwards from Helmſtee lieth the little townne, or little caſtle, called Laholm, there goeth alſo a little river into the land. A league weſtwards from Laholme lieth Boſtadt, theſe places lye in a great bay.



Swedereur.

Three leagues to the weſtwards of Boſtadt lyeth the Iland Swedereur, you may runne in behind it at both ſides, for to anckor from the northwards, it is there large and broad for to goin: but from the north end of Swedereur ſhooteth of a little ledge of rocks, you muſt runne alongſt to the northwards off the rocks, that lye at the north end of Swedero, leaving them on the ſtarboard ſide, and anckor behinde the Iland, betwixt the great and little rockes in ſeven fathem, thwart of the little white church of Turcko, ſo that the greate rock with the two warders at the ſouth end be ſouthweſt from you, and Col ſtand over the foreſayd Rock, there it is beſt lying, and there you are landlockt for all winds. If you wil run out again to the ſouthwards of it, then leave the two rockes with the Warders on the ſtarboard ſide, and runne boldly cloſe about by them, towards Coll.

Coll. He that cometh of from Anout, and by reaſon of ſouther-lye windes can not run a weather Col, let him goe from Col northeaſt and by north towards Swedereur, and runne cloſe about by the two foreſaid rocks with the Warders, at the ſouth-end of Swedereur, untill he come behind the Iland, and anckor, as is before ſayd, there it is ſott ground. A north winde bloweth there open in.

From Swedereur to Coll the courſe is ſouthweſt and by ſouth, betwixt both lyeth a greate baye, upon which lieth that little thouwne Engelholme, where men alſo may ride.

For to ſayl from the Scaw to Coll.

From the Riffe of the Scawe to the Iland Leſou, the courſe is ſouthſoutheaſt, but the poinre of the Riffe and the Trindel lye due ſoutheaſt and northweſt eight leagues aſunder.

Leſou. The Iland Leſou is compaſſed round about with ſoule Dwaelgrounds, riffe and ſands, that lye off. From the ſouth-eaſtend where the Church ſtands upon, lyeth of ſuch a great riffe or ſhould from the ſhoare, that is about 3 leagues from the land to the ſouthwards of it, it is not deeper then two fathome, there under it you may make road for a ſouthſoutheaſt winde. Likewiſe from the S. weſt point, lyeth of ſuch a great ſhowld, that when the foreſayd ſtatt church is eaſt, and eaſtnortheaſt from you, you can not come neare the land within 3 leagues. But the north end you may come ſo near, that you may have rode under it for a ſoutherly and Southeaſt winde, in 3, 4, 5, 6, and 7 fathom, the church being about ſouth from you.

From the northeaſt end lyeth off alſo a riffe right towards the Trindel, which you may found about, when you Sayle through betwixt Leſou, and the Trindell, which is te nearer Leſou the ſhowlder, and the nearer the Trindell the deeper. Cloſe by the Trindel ou the Inner ſide or weſt ſide, it is deepe five and ſix fathom. Riffe of Leſou.

The Trindell is a ſtony Sand-plate, three cornerd, and ſomewhat long of faſhion, it is no more then foure foot deep, and about two Akers of land great, and lyeth moſt alongſt the fareWaye, lying from the Northeaſt end of Leſou Northeaſt, or a little more eaſterly about 3 leagues diſtant. On the northeaſt ſide of the Trindell lyeth allways a great buy, whereby you may know it a farre off. Trindel.

When the poynt of the Scaw is northeaſt and by weſt about a league from you, there it is ſeventeen and eightеene fathom deep, but when the poynt lyeth weſt, and weſt and by ſouth from you, about a league there it is 4 or 35 fathom deep. Depths about the Scaw.

But he that commeth faylinh about the Scaw, and runneth without the riffe in tenne, eleven, or twelve fathom, and goeth on from thence Southeaſt, or Southſoutheaſt, keepeth a long while ſtill, the depth of fifteen and fixteen fathom, at leaſt the ſpace of three leagues, before he gette twenty, or five and twenty fathom. When as that you beginne to get againe ſhowlder water of tenne, eight, ſeven, and ſix fathom, that goeth then through within the Trindell. When that you ſhall meete with the foreſayd depth of the ſhowlding, and ſaile yet further on Southſoutheaſt, then you muſt be very carefull to uſe your lead often, becauſe of the foreſaid ſhowld, which lyeth of from the norteaſt end of Leſou towards the Trindell, you may run over it (as is ſaid) in five, foure, and ſo well (in the narrowe) in three fathom. When the northeaſt point of Leſou beginneth to come Southſouthweſt from yoy, then you come on againſt the riff or ſhowld, but when the point is Southweſt from you, then you are over the ſhowldeſt off the riffe. When the weſt end of Leſou is Southweſt, and the church Southweſt and by ſouth from you, then you are about thwart of the buye of the Trindell.

Four leagues ſouth and by weſt from the Scaw lye the ſmal-Helmes, not far from the ſhoare, that are three little Ilands, the ſouthermoſt the lutres doe call the Deyen or the Dee, the middlemoſt Holmes, and the northermoſt Graſholme by them lyeth yet another little Iland. You may faile through between the ſouthermoſt and the middlemoſt, but then you muſt runne neareſt the ſouthermoſt, trough betwixt them is four fathom water. The Hel-mes.

Under the Helmes is good road for ſoutheaſt, ſouth ſoutheaſt and ſoutherly windes, He that will go to anckor under them, comming from the Scaw, muſt runne to the ſtrand in three fathom, and runne ſo alongſt by it, in betweene the ſtrand and the Helmes, untill that he be within the rocks, there he may anckor, or alſo well runne through alongſt by the ſoote ſtrand in 3 fathom. When the rockes of the Helms are eaſt, and eaſt and by north from you, there is the roade in 4 fathom, and 4 fathom and a half. The beſt road for to ly under the Helms with ſmall ſhips, is betwixt the ſouthermoſt and middle moſt little Iland, ſomewhat nearer the main land then the Ilands: but for great ſhips it is beſt to lye by the Gruſholme.

He that will not lye ſo far within the Helmes, may alſo anckor farther out under the high land of Lacklou, ſo that the Helms be Southeaſt from him, in four, five, or ſeven fathom, there it is alſo very good lying for South and Southſoutheaſt windes, in clean ground, of ſmall white and black ſand.

Betwixt the Scawe and the Helmes in the fareWaye it is deep eighteen, fixteen, and fifteene fathom. Betwixt the Helmes and the maine land, there is at the ſhowldeſt three fathom water. When you come from the northwards drouge betwixt them untill you come thwart of the ſouth end of the rockes, there runneth off a little riffe from the Helmes towards the ſtrand, where the great ſtones lye called Bourſer riffe, but keeping in three fathom, you can not take hurte of that riffe. You may well run out againe by that ſouth end towards Zeabury. So that you may ſayl round about the Helmes with ſhippes that are not of very great draughts.

Betwixt the Helmes and Leſou, a good wayes from the

Helmes, it is 20 and 25 fathom deep, soft ground, but one league from the Helme lye some rocks or howlds, where of you must take heed.

Dwael-ground. To the westwards of Lesou lye the Dwaelgrounds, to the northwards of the forefaid riffe, that lyeth off from the S.W. point of Lesou, where the flat church standeth upon, which are very uneven of three, four, five, and fixe fathom deep. Of theſe and more other howlds and uneven grounds, betwixt Lesou & Zeabuy, reade the deſcription off the norther part of the Belt.

Rockes betwixt Lesou and the Holmes. About a league northnorthweſt from the weſt end of Lesou, S.S.E. fomewhat foutherly from the point of the Scaw, and eaſt foutheaſt from the little Helmes, there lye two or 3 little low llands or rocks, a little above water; betwixt theſe Holmkens, and the Helms, it is twenty fathom, but betwixt theſe Holmkens and Lesou 5 fathom deep, to the northwards off them is farre flat, foure and five fathom deepe ſandground.

If you will ſayl by night off from the Helmes or from the high land of Lacklie towards Lesou with a foutheweſt or ſouthſouthweſt winde, then ſayle no nearer becauſe of theſe little llands and howlds then foutheaſt and by eaſt, with that courſe you ſhall runne over thoſe howlds or flats (lying to the northwards from the foreſaide Holmkens) in ſix or ſeven fathom, afterwards it will be deeper again, nine, ten, and twelve fathom, go then on eaſt foutheaſt ſo long untill that the eaſt end of Lesou be S.W. from you. When that eaſt end beginneth to come ſouth and by weſt from you, then you come on againſt the flat, or riſ, which ſhooteth off from the northeaſt end of Lesou towards the Trindell. It doth ſhold up from 14. 12, and 10 fathom, unto 8, 6, and 4, and alſo to 3 fathom. If you be ſomewhat near to Lesou, the three fathom lafteth a good whiles, and then it wil be again deepeſ, four, ſix, tenne and fifteene fathom, and then verie deep. When that foreſaid northeaſt end of Lesou is S.W. from you, then you are cleare of that flat. The Helmes and the Trindel lie eaſt and by ſouth and weſt and by north ſeven leagues aſunder.

For to fail within the Trindel. When you come from the Scaw with a ſouthweſt or weſtſouthweſt winde, and that you wil fail through within the Trindel, that is, betwixt the Trindel and Lesou, it is beſt that you goe ſuch a courſe, that you may make your wayes good ſoutheaſt and by ſouth, and then you ſhal run alongſt about the midſt of the channell, through betwixt the Trindel, and the foreſayd low rocks, (which lye northnorthweſt of from the northpoint of Lesou, and ſouthſoutheaſt from the point of the Rif of the Scaw.) At the deepeſt in this fareware, betwixt the Scaw and Lesou, it is 23 and 24 fathom, being paſt over that, you ſhal come againſt a banck of eight, ſeven and ſix, and alſo into five fathom, and then you ſhal be about due weſt, or a little more northerly or ſoutherly from the buye upon the Trindel. Afterwards it will be again deeper, if you be in the right fareway, to wete, 7, 8, 10, and alſo wel twelve fathom.

For not to fail within the rif, or the northeaſt point of Lesou, it is good to run theſe ſomewhat more eaſterly, to wete, ſoutheaſt, or ſoutheaſt and by eaſt, untill you come againſt the foreſayd riff that lyeth off from the northeaſt point of Lesou, which you may found, and ſo runne about by it in five, four, and alſo three fathom. When the northeaſt point of Lesou, (that is the point with hommocks) is ſout and by weſt from you, then you come againſt the riff, and when that point is S.S.W. from you, then you are right twhart of the rif, but when the point is S.W. from you, then you ſhall be paſt and cleare of the rif. Being gotten about it towards Anoute, it will be deepe thirtie, five and thirtie and alſo forty fathom.

He that commeth by night about the Trindell, muſt not ſpare his lead, on the outer ſide, that is on the eaſt ſide off the Trindly you may not come no neare it by night, then nine or tenne fathom, and then you ſhall not beſarre off from it.

When you faile cloſe alongſt without the Trindel in cleare weather, and that you ſtand without board, upon the bendes of the ſhippe with your feet by the water, then you can even ſee Lesou. If that then in cleare weather ſtanding ſo without the ſhip, you can not ſee Lesou, when you are about thwart of the Trindle then you runne farre enough alongſt without the Trindle.

Depths betwixt Anoute and Lesou. The Trindle and the riffe of Anout lye northweſt and ſoutheaſt or as ſome ſay ſouthſoutheaſt and northnorthweſt, nine or tenne leagues aſunder. Betwixt Anoute and Lesou in the right fareway ar it is five and twentie fathom deep, but to the weſtwards of it, to wit, right betwixt the Lands Anoute and Lesou it is ſhould water, of ſeven and eight fathome, you may ſayle there over theſe flats and ſhowlds through betwixt Anout and Lesou into the Belt.

Anout is upon the weſt ſide very ſcule, and farre off to ſea-

places in tenne, eleven twelve, and thirteen fathom. When you anckor in eleven, twelve or thirteene fathom, ſo that the Fire-beacon be foutheaſt and by ſouth, and the high land of Anout, which is the weſt end, about foutheweſt and by weſt from you, then lieth the outermoſt end of the riffe eaſt and by north from you, there is very good lying for eaſtſoutheaſt, ſoutheaſt, ſouth, and ſouthſoutheweſt windes. When you ſet ſayle from thence, and are bound to the Sounde, then you may boldly without feare (either by night or darke weather) ſail alongſt by the riffe in ſixteen, ſeventeen or eighteene fathom, untill thwart of the ende, keeping in ſuch depth you kan take no hurt of it. Comming by the end, it is four and twenty and five and twenty fathom deepe, but when you com about the point, and beginne to goe on ſouthſoutheaſt, then you have preſently cloſe to the riffe no ground in thirtie and five and thirtie fathom. The riffe of Anout and Col lye one from the other ſoutheaſt and northweſt about tenne leagues aſunder. In cleare weather you may eaſily ſee from belowe both Col and Anout, when you are betwixt them both. For to ſaile from the riffe to the Sound with a weſtſoutheweſt winde, you neede not faile nearer with a ſhip that faileth wel, then ſouthſoutheaſt, with that courſe you ſhall fail farre enough a weather of Col. Comming neare the coaſt of Zealand, that you may ſound in fourteene, twelve, tenne, and eight fathome deepe,

Betwixt Anout and Zealand, in the fareway it is eighteene and twentie fathom deepe. Betwixt Anout and Zealand fifteen and ſixteen fathom, but in the farewaye betwixt Anout and Coll, it is deepe twentie, one and twentie, two and twenty, and three and twentie fathom. To the ſouthwards off the weſtwardes of it, it is ſhowlder, to wete, nineteene, eighteene, and alſo wel fourteene, thirteene, and 12 fathom, according as you come to the weſtwards, but towardes Norwaye it is deeper, to wete, four and twenty, five and twentie, eight and twentie and alſo thirtie fathom, whereby you may perceive wether you be neareſt the Norway ſide to the eaſtwards of the fareway or to the weſtward.

About northweſt from Col four leagues, and ſoutheaſt and by eaſt from Anout, there lyeth a banck of nine, tenne and twelve fathom.

About eaſt and by ſouth from Anout, ſo far that you can not well ſee it from beneath, but you may ſee out of the top, and northweſt from Coll, there lyeth alſo a banck off ſixteene fathom, groſſe ſand ground, as if it were ground of the riffe.

South and by eaſt about eight leagues from the point off Anouts-riffe, ſoutheaſt and by ſouth from the ſouth end off Anout, and weſt and by north from Coll about 5 leagues, lye the Lowſegroundes, upon which is no more then eight foot water. He that commeth off from Anout riffe, being bound for the Sound, and goeth not more ſoutherly then ſouthſoutheaſt, ſhal not faile within theſe grounds, but with a ſouth and by eaſt courſe he ſhowld fall with them. He that cometh out of Sound, being bound towards Anout, ſhould (with a W. N.W. courſe of from the Sound) alſo faile within the ſame therefore he that is bound with a bare winde from Anout to the Sound, or from the Sound to Anout, muſt be carefull thereof.

Hafelin. The Iland Hafelin lyeth from Anouts riffe ſouth tenne leagues diſtant, and from Coll ſouthweſt and by weſt eight leagues, which is on the north ſide or outer ſide verie ſoule, full of riffes and ſhoulds, but on the ſouth ſide or inner ſide towards Zealand it is indifferent clean, ſo that you may wel have roade there. From the eaſt end of Hafelin lieth of a riffe northnortheaſt and northeaſt and by north towardes Norwaye three leagues into ſea, untill within a league near to the Lowſegrounds: he that muſt turne to windewards here, with ſoutherly or northerly windes, and runneth ſomewhat far over weſtwards into the bay, muſt be very careſull, and take heed there of, becauſe it is there abouts very uneven of depths, and uneven grounds, and therefore you can not well come neare then by your lead, but the Coaſt of Zealand you may come neare in ſix or ſeven fathom by your lead.

Depths in the Scawe reach. If it howld happen that you muſt lye by, in the Scawe reach in long darke nights or miſtie whether, then obſerve theſe directions following: If you be betwixt the Scawe and Lesou, then you may keepe your ſelf well boudly to the ſouthwards or weſtwards, but uſe the lead much: about the Helmes and the Scawe you may come neare the ſhoare into ten, 12, or 15, fathom, before you need the caſt about. If you be by your reckoning thwart of Lesou, you may come neare it in ten or 15 fathom. But if you be betwixt Lesou and Anout, there you may runne upon the flats in five, ſix, ſeven, eight or tenne fathom. If you be betwixt Anout Hafelin and Coll, there you may runne to the ſouthſhoare in fifteene and ſixteene fathom, but betwixt Hafelin and Zealand in ten or twelve fathom.

It is beſt in anie wiſe to keepe you rather to the ſouthſhoare, then to the Norway ſide, but you muſt be verie carefull of your lead, and uſe it very much.

Depths with out riffe of the Iland.

Of the tydes and courſes of the ſtreames.

In the Scawe reach, betwixt Maelſtrand and Watersbergen the ſtreame goeth moſt ſtill with the winde and it rippleth there ſometimes in ſome places, as if there where ſhowlds, this you may finde in calme weather, if you let a lead fincke to the ground.

By the Scawe the ſtreame commeth moſt commonly ſailling out at the Bele towards the Iland of N.E. eſpecially when the winde hath blown a while out of the eaſt or N.eaſt, and runneth alongſt by the Norwaye to the Northwards.

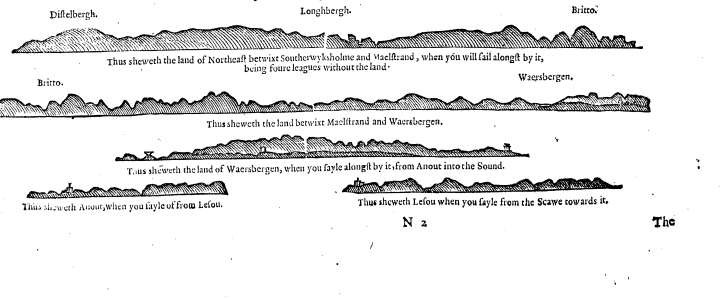
Non comming off from Anout, that wil ſayle by night with a weſtely winde, towards the Scawe: or comming from the weſtwards about the Scaw, with a ſoutherly wind, being bound for the Sound, might ſoon be carried with this current under Norway, a good whiles before they ſhowld chincke a feare of it. Of this current read further in the firſt booke.

In this fareway betwixt the Scawe and the Sound, and then from the Sound untill about Falſterbourne, it is exceeding neceſſarie, that a Pilot (or he to whom the charge is commited) be verie careſull in looking out, and be very vigiland, that he may avoyde the multitude of daungers, of ſhowlds and riffes lying there: the ſkilfulleſt and beſt experienced of all hath there enough to doe.

Courſes and Diſtances.

From Akerſound to Southerwyckſholme ſoutheaſt and by eaſt		5 leagues
From Southerwykſholme to Harmenshead ſouthſoutheaſt	4 or	5 leagues
From Harmanshead to the weſt end of Faternoſters		5 leagues
From the weſt end of the Paternoſters to the Maelſtrand the courſe is eaſtnorth eaſt		2 leagues
From Maelſtrand to Winnou ſoutheaſt		1 leagues
From Winnou to Maelſound ſouthſoutheaſt about		5 leagues
From Maelſound to Waersbergen ſouthſoutheaſt		5 leagues
From Waersbergen to Tuylo ſoutheaſt		5 leagues
From Tuylo to Laholme ſoutheaſt and by eaſt		5 leagues
From Laholme to the point of Turko behinde Swedeneur the courſe is weſt-ſouthweſt		3 leagues
From Turko to Engbelholme ſoutheaſt		4 leagues
From Engbelholme to Coll weſt		4 great leagues
From Maelſtrand to Nyding ſouthſoutheaſt		8 or 9 leagues
From Maelſound to Nyding the courſe is ſouthweſt and ſouthweſt and by weſt a league and an half		
From Nyding to Waersbergen ſoutheaſt about		5 leagues
From Waersbergen to Coll ſouth and by eaſt		12 leagues
From the ſouth end of Swedero to Coll ſouthweſt		4 leagues
From the riffe of the Scaw to Maelſtrand eaſtnortheaſt		13 leagues
From the riffe of the Scaw to Nyding ſoutheaſt and by ſouth		16 leagues
From the Riffe of the Scawe to Waersbergen eaſtſoutheaſt		23 leagues
From the Riffe of the Scawe to Coll alongſt without the Trindle S.		30 leagues
From the Riffe of the Scawe to Lesou ſouthſoutheaſt		8 leagues
From the Riffe of the Scawe to the Trindell due ſoutheaſt		8 leagues
From the Trindell to Anouts riffe ſoutheaſt, or as ſome will ſaye ſomewhat more ſoutherlye		9 or 10 leagues
From Anoutes riffe to Coll it is right ſoutheaſt		10 leagues
From Anouts riffe to Hafelin ſouth		10 leagues
From Coll to Hafelin ſouthweſt and by weſt		8 leagues
From Coll to the northermoſt out pointe of Zealand ſouthweſt		5 leagues

How theſe Lands doe ſhew themſelves at ſea.



Helmes, it is 20 and 25 fathom deep, soft ground, but one league from the Helme lye some rocks or howlds, where of you must take heed.

Dwael-grounds. To the weltwards of Lesou lye the Dwaelgrounds, to the northwards of the forefaid riffe, that lyeth off from the S.W. point of Lesou, where the flat church ftandeth upon, which are very uneven of three, four, five, and fixe fathom deep. Of theſe and more other howlds and uneven grounds, betwixt Lesou & Zeabuy, reade the deſcription off the norther part of the Belt.

Rockes betwixt Lesou and the Helmes. About a league northnorthweſt from the weſt end of Lesou, S.S.E. fomewhat foutherly from the point of the Scaw, and eaſt foutheaſt from the little Helmes, there lye two or 3 little low Ilands or rocks, a little above water; betwixt theſe Holmkens, and the Helms, it is twenty fathom, but betwixt theſe Holmkens and Lesou 5 fathom deep, to the northwards off them is farre flat, foure and five fathom deepe ſandground.

If you will ſayl by night off from the Helmes or from the high land of Lacklie towards Lesou with a ſouthweſt or ſouthſouthweſt winde, then ſayle no nearer becauſe of theſe little Ilands and howlds then ſoutheaſt and by eaſt, with that courſe you ſhall runne over thoſe howlds or flats (lying to the northwards from the foreſaide Holmkens) in ſix or ſeven fathom, afterwards it will be deeper again, nine, ten, and twelve fathom, go then on eaſt ſoutheaſt ſo long untill that the eaſt end of Lesou be S.W. from you. When that eaſt end beginneth to come ſouth and by weſt from you, then you come on againſt the flat, or riſe, which ſhooteth off from the northeaſt end of Lesou towards the Trindell. It doth howld up from 14. 12, and 10 fathom, unto 8, 6, and 4, and alſo to 3 fathom. If you be ſomewhat near to Lasou, the three fathom lafteth a good whiles, and then it will be again deepeſt, four, ſix, tenne and fifteene fathom, and then verie deep. When that forefaid northeaſt end of Lesou is S.W. from you, then you are cleare of that flat. The Helmes and the Trindel lie eaſt and by ſouth and weſt and by north ſeven leagues aſunder.

For to ſail within the Trindel. When you come from the Scaw with a ſouthweſt or weſtſouthweſt winde, and that you wil ſail through within the Trindel, that is, betwixt the Trindel and Lesou, it is beſt that you goe ſuch a courſe, that you may make your wayes good ſoutheaſt and by ſouth, and then you ſhal run alongſt about the midſt of the channell, through betwixt the Trindel, and the foreſayd low rocks, (which lye northnorthweſt of from the northpoint of Lesou, and ſouthſouthweſt from the point of the Riſ of the Scaw). At the deepeſt in this farewaye, betwixt the Scaw and Lesou, it is 23 and 24 fathom, being paſt over that, you ſhal come againſt a banck of eight, ſeven and ſix, and alſo into five fathom, and then you ſhal be about due weſt, or a little more northerly or ſoutherly from the buye upon the Trindel. Afterwards it will be again deeper, if you be in the right fareway, to wete, 7, 8, 10, and alſo wel twelve fathom.

For not to fail within the rif, or the northeaſt point of Lesou, it is good to run theſe ſomewhat more eaſterly, to wete, ſoutheaſt, or ſoutheaſt and by eaſt, untill you come againſt the foreſayd rif that lyeth off from the noortheaſt point of Lesou, which you may found, and ſo runne about by it in five, four, and alſo three fathom. When the northeaſt point of Lesou, (that is the point with hommocks) is four and by weſt from you, then you come againſt the riff, and when that point is S.S.W. from you, then you are right twhart of the rif, but when the point is S.W. from you, then you ſhall be paſt and cleare of the rif. Being gotten about it towards Anoute, it will be deepe thirtie, five and thirtie and alſo forty fathom.

He that commeth by night about the Trindell, muſt not ſpare his lead, on the outer ſide, that is on the eaſt ſide off the Trindly you may not come no neare it by night, then nine or tenne fathom, and then you ſhall not befarre off from it.

When you ſaile cloſe alongſt without the Trindel in cleare weather, and that you ſtand without board, upon the bendes of the ſhippe with your feet by the water, then you can even ſee Lesou. If that then in cleare weather ſtanding ſo without the ſhip, you can not ſee Lesou, when you are about thwart of the Trindle then you runne farre enough alongſt without the Trindle.

Depths betwixt Anout and Lesou. The Trindle and the riffe of Anout lye northweſt and ſoutheaſt or as ſome ſay ſouthſoutheaſt and northnorthweſt, nine or tenne leagues aſunder. Betwixt Anoute and Lesou in the right fareway te it is five and twentie fathom deep, but to the weſtwards of it, to wit, right betwixt the Ilands Anout and Lesou it is ſhould water, of ſeven and eight fathome, you may ſayle there over theſe flats and ſhowlds through betwixt Anout and Lesou into the Belt.

Anout is upon the weſt ſide very ſcule, and farre of to ſea-

wards from it, lye many uneven dwaelgrounds, of two, three, and four fathome.

When you ſail with a ſouthweſt or weſterly winde from Lesou to Anout, and runne over the flat of Lesou in three or four fathome, you neede not faile on more eaſterly them ſoutheaſt and by eaſt, although it be by night, you ſhall with ſuch winde and courſe run cleare enough of Anout. When as that you reckon to have the length of the riffe, goe then on ſouthſoutheaſt and ſouth and by eaſt, for to fail a wether of Coll. But by day or when you can ſee about you, not more leewarly then ſouthſoutheaſt. When you faile off from the foreſaid point of Lesou to Anout with a ſouthweſt or weſtſouthweſt winde, as is before ſaid and make reckoning to come by night by Anout, then you can not doe better, as to goe eight, tenne, or twelve glaſſes, (according as the winde ſhall blow freſh) on ſouthſoutheaſt, until you come againſt the ſhowlding of Anout and looke for the daye, that running not to far to leewards of the point off the riffe, you may the better gette a wether of Col. Likewiſe, when you come off from Coll with a ſouthweſt or ſoutherly winde, and runne about a halfe league alongſt without Coll, you neede not alſo faile more northerly, then northweſt and by north, that goeth alſo a good waye alongſt to leewards off Anouts riffe, and ſo forth towards Lesou. But when you come with a northeaſt winde out off the Sound, or from Col, you muſt runne out cloſe by Coll, if you will fail a weather off the riffe off Anout.

He that muſt lye by or turne to windwardes betwixt Lesou and Anout, and is bound for the Sound, let him keepe himſelfe on the weſt ſide of the farewaie, when he is a league or two a wather of Lesou, upon thoſe foreſaid flattes, or fourne, ſixe, and ſeven fathom, when as that he beginneth to come within a league or two off Anout, there it will be again deeper, but uneven the one caſt at leaſt a fathome more or leſſe then the other, when that you ſhall begin to get that uneven ground off ſixtecne, twentie, and alſo thirtie fathom, then is Anout yet about three leagues ſouth from you, comming neare Anout it will be verie uneven, at one time thirtie, and then ſoone againe fifteene, 17, and alſo 20 fathom.

If you will faile towards Lesou with a ſouthweſt winde, coming about the riffe off Anout from the ſouthwardes, then goe not on more weſterly then northweſt. If you goe on more weſterly, either weſtnorthweſt, or northweſt and by weſt, then you ſhall come ſoon upon the flatte betwix Anout and Lesou, and ſhall finde firſt tenne, and then by little and little, 6, 5, and 4 fathom. When that with the northweſt way you beginne to gette Lesou in ſight, then it lieth high, that is, the weſt ende about weſtnorthweſt, and the northeaſt ende, where the riffe lyeth off, about northnorthweſt from you. When you come to neere to Lesou, that you can ſee the eaſt end out off the toppe of it in cleare weather, about northweſt from you, there it is thirtie, and 34 fathome deepe, that lafteth ſo long untill that the foreſaid eaſt pointe be ſouthſouthweſt from you, but when that point is ſouthſouthweſt from you, then you are right thwart or upon the pointe or ſhowldeſt off the riff, then you ſhal runne over there in three, 4, 5, Fathom: When that foreſaid point commeth to be ſouth and by weſt from you, then you are paſt and cleare of the riffe.

Betwixt Anout and Waesbergen in the farewaye it is deepe, one and twentie, two and twentie, and three and twentie Fathome, betwixt them lyeth alſo a banck off ten, twelve, 14, and fixteene fathom. When the northermoſt high hil of Waesbergen is northeaſt from you, then the pointes off Anoutes riffes is ſouthweſt from you. but when that hill is northeaſt and by eaſt from you, and that you be ſomewhat nearer Norwaye then the riffe, then you are upon the banck. When you come upon it by night, then goe on ſouth, or ſouth and by eaſt, according as the winde ſhall bee, and then you ſhall get againe deeper water. There lieth yet another banck betwixt the riffe of Anout and Valckenburgh, which lyeth alongſt unto Haland, which at ſome places is not deeper then eight fathom. When the pointe off the riffe is about ſouth and by eaſt, and the high land off Anoute is about S. and by weſt from you 4 leagues, there lyeth alſo a banck off 14 or 15 fathom.

The riffe off Anout lyet off from the northeaſt point off Anout about eaſtnortheaſt a league and a halfe into ſea, and at the end lieth deepe above water, which is exceeding ſteepe and needle too. The north ſide (when you come from the northwards or the weſtwards) you may found, and runne alongſt by it in 17, or 18 fathome: but comming from the ſouthwards, you can not (in no wiſe) come neare it by your lead, for on the ſouth ſide cloſe to the Riff, it is thirtie and five and thirtie fathome deep.

On the north ſide off the riffe, you may meeker at many places

Road under Anoutriffe. places in tenne, eleven twelve, and thirteen fathom. When you anckor in eleven, twelve or thirteene fathom, ſo that the Fire-beacon be ſoutheaſt and by ſouth, and the high land of Anout, which is the weſt end, about ſouthweſt and by weſt from you, then lieth the outermoſt end of the riffe eaſt and by north from you, there is very good lying for eaſtſoutheaſt, ſoutheaſt, ſouth, and ſouthſouthweſt windes. When you fet ſayle from thence, and are bound to the Sounde, then you may boldly without feare (either by night or darke weather) ſail alongſt by the riffe in fixteen, ſeventeen or eighteene fathom, untill thwart of the ende, keeping in ſuch depth you kan take no hurt of it. Comming by the end, it is four and twenty and five and twenty fathom deepe, but when you com about the point, and begione to goe on ſouthſoutheaſt, then you have preſently cloſe to the riffe no ground in thirtie and five and thirtie fathom. The riffe of Anout and Coll lye one from the other ſoutheaſt and northweſt about tenne leagues aſunder. In cleare weather you may eaſily ſee from belowe both Col and Anout, when you are betwixt them both. For to faile from the riffe to the Sound with a weſtſouthweſt winde, you neede not faile nearer with a ſhip that faileth wel, then ſouthſoutheaſt, with that courſe you ſhall fail farre enough a weather of Col. Comming neare the coaſt of Zealand, that you may ſound in fourteene, twelve, tenne, and eight fathome deepe.

Depths betwixt Anout riffe and the ſound. Betwixt Anout and Zealand, in the farewaye it is eighteene and twentie fathom deepe. Betwixt Anout and Zealand fifteen and ſixteen fathom, but in the farewaye betwixt Anout and Coll, it is deepe twentie, one and twentie, two and twenty, and three and twentie fathom. To the ſouthwards off the weſtwardes of it, it is ſhowlder, to wete, nineteene, eighteene, and alſo wel fourteene, thirteene, and 12 fathom, according as you come to the weſtwards, but towardes Norwaye it is deeper, to wete, four and twenty, five and twentie, eight and twentie and alſo thirtie fathom, whercby you may perceive wether you be neareſt the Norway ſide to the eaſtwards of the fareway or to the weſtward.

Divers Bancks. About northweſt from Col four leagues, and ſoutheaſt and by eaſt from Anout, there lyeth a banck of nine, tenne and twelve fathom.

About eaſt and by ſouth from Anout, ſo far that you can not well ſee it from beneath, but you may ſee out of the top, and northweſt from Coll, there lyeth alſo a banck off ſixteene fathom, groſſe ſand ground, as if it were ground of the tiffe.

Lowſe-grounds. South and by eaſt about eight leagues from the point off Anouts-riffe, ſoutheaſt and by ſouth from the ſouth end off Anout, and weſt and by north from Coll about 5 leagues, lye the Lowſegroundes, upon which is no more then eight foot water. He that commeth off from Anout riffe, being bound for the Sound, and goeth not more ſoutherly then ſouthſoutheaſt, ſhal not faile within theſe grounds, but with a ſouth and by eaſt courſe he ſhowld fall with them. He that cometh out of Sound, being bound towards Anout, ſhould (with a W.N.W. courſe of from the Sound) alſo faile within the ſame therefore he that is bound with a bare winde from Anout to the Sound, or from the Sound to Anout, muſt be carefull thereof.

Haſelin. The Iland Haſelin lyeth from Anouts riffe ſouth tenne leagues diſtant, and from Coll ſouthweſt and by weſt eight leagues, which is on the north ſide or outer ſide verie foule, full of riffes and ſhoulds, but on the ſouth ſide or inner ſide towards Zealand it is indifferent clean, ſo that you may wel have roade there. From the eaſt end of Haſelin lieth of a riffe northnortheaſt and northeaſt and by north towardes Norwaye three leagues into ſea, untill within a league near to the Lowſegrounds: he that muſt turne to windewards here, with ſoutherlye or northerly windes, and runneth ſomewhat far over weſtwards into the bay, muſt be very careſull, and take heed there of, becauſe it is there abouts very uneven of depths, and uneven grounds, and therefore you can not well come neare then by your lead; but the Coaſt of Zealand you may come neare in ſix or ſeven fathom by your lead.

If it ſhould happen that you muſt lye by, in the Scawe reach in long darke nights or miſtie whether, then obſerve theſe directions following: If you be betwixt the Scawe and Lesou, then you may keepe your ſelf well bouldly to the ſouthwards or weſtwards, but uſe the lead much: about the Helmes and the Scawe you may come neare the ſhoare into ten, 12, or 15, fathom, before you need the caſt about. If you be by your reckoning thwart of Lesou, you may come neare it in ten or 15 fathom. But if you be betwixt Lesou and Anout, there you may runne upon the flats in five, ſix, ſeven, eight or tenne fathom. If you be betwixt Anout Haſelin and Coll, there you may runne to the ſouthſhoare in fifteene and ſixteene fathom, but betwixt Haſelin and Zealand in ten or twelve fathom.

Depths in the Scawe reach.

It is beſt in anie wiſe to keepe you rather to the ſouthſhoare, then to the Norway ſide, but you muſt be verie carefull of your lead, and uſe it very much.

Of the tydes and courſes of the ſtreames.

In the Scawe reach, betwixt Maelſtand and Watersbergen the ſtreame goeth moſt ſtill with the winde and it rippleth there ſometimes in ſome places, as if there where ſhowlds, this you may finde in calme weather, if you let a lead fincke to the ground.

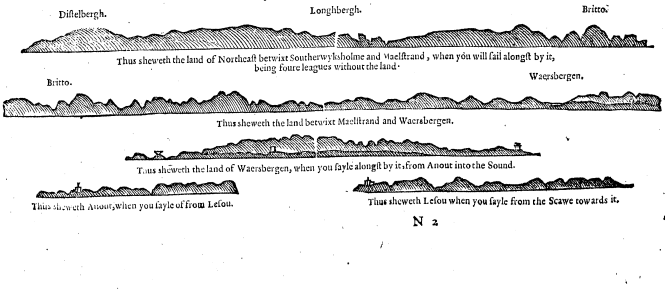
By the Scawe the ſtreame commeth moſt commonly ſtalling out at the Bele towards the Iland of N.E. eſpecially when the winde hath blown a while out of the eaſt or N.eaſt, and runneth alongſt by the Norwaye to the Northwardes. Men comming off from Anout, that wil fayle by night with a weſterly winde, towards the Scawe: or comming from the weſtwards about the Scaw, with a ſoutherly wind, being bound for the Sound, might ſoon be carried with this current under Norway, a good whiles before they ſhowld thincke a feare of it. Of this current read further in the firſt booke.

In this farewaye betwixt the Scawe and the Sound, and then from the Sound until about Falſterborne, it is exceeding neceſſarie, that a Pilot (or he to whom the charge is commited) be verie carefull in looking out, and be very vigilant, that he may avoyde the multitude of daungers, of ſhowldes and riffes lying there: the ſkilfulleſt and beſt experienced of all hath there enough to doe.

Courſes and Diſtances.

From Akerſound to Southerwykſholme ſoutheaſt and by eaſt	5 leagues
From Southerwykſholme to Harmenshead ſouthſoutheaſt	4 or 5 leagues
From Harmanshead to the weſt end of Paternoſters	8 leagues
From the weſt end of the Paternoſters to the Maelſtrand the courſe is eaſtnorth eaſt	2 leagues
From Maelſtrand to Winneu ſoutheaſt	5 leagues
From Winneu to Maelſound ſouthſoutheaſt about	1 leagues
From Maelſound to Waersbergen ſouthſoutheaſt	5 leagues
From Waersbergen to Tuylo ſoutheaſt	5 leagues
From Tuylo to Laholme ſoutheaſt and by eaſt	5 leagues
From Laholme to the point of Turko behinde Swedereur the courſe is weſt-ſouthweſt	3 leagues
From Turko to Engheliholme ſoutheaſt	4 leagues
From Engheliholme to Coll weſt	4 great leagues
From Maelſtrand to Nyding ſourſouthweſt	8 or 9 leagues
From Maelſound to Nyding the courſe is ſouthweſt and ſouthweſt and by weſt a league and an half	5 leagues
From Nyding to Waersbergen ſoutheaſt about	11 leagues
From Waersbergen to Coll ſouth and by eaſt	4 leagues
From the ſouth end of Swedere to Coll ſo ſhweſt	13 leagues
From the riffe of the Scaw to Maelſtrand eaſtnortheaſt	16 leagues
From the riffe of the Scaw to Nyding ſoutheaſt and by ſouth	23 leagues
From the Riffe of the Scawe to Waersbergen eaſtſoutheaſt	30 leagues
From the Riffe of the Scawe to Coll alongſt without the Trindle S. more ſouthe lye	8 leagues
From the Riffe of the Scawe to Lesou ſouthſoutheaſt	8 leagues
From the Riffe of the Scawe to the Trindell due ſoutheaſt	9 or 10 leagues
From the Trindell to Anouts riffe ſoutheaſt, or as ſome will ſaye ſomewhat	20 leagues
From Anoutes riffe to Coll it is right ſoutheaſt	20 leagues
From Anouts riffe to Haſelin ſouth	8 leagues
From Coll to Haſelin ſouthweſt and by weſt	5 leagues
From Coll to the northermoſt out pointe of Zealand ſouthweſt	

How theſe Lands doe ſhew themſelves at ſea.



Thus ſheweth the land of Northeaſt betwixt Southerwykſholme and Maelſtrand, when you will ſail alongſt by it, being foure leagues without the land.

Thus ſheweth the land betwixt Maelſtrand and Waersbergen.

Thus ſheweth the land of Waersbergen, when you ſayle alongſt by it, from Anout into the Sound.

Thus ſheweth Anout, when you ſayle of from Lesou.

Thus ſheweth Lesou when you ſayle from the Scawe towards it.

The fixth Demonſtration,

In which Are ſeth forth the North coaſts, between Akerſound and Schaerſound, and from Schaerſound to Schoytenes.

THE Longſound is one of the faireſt havens off all Norway, and lieth northnortheaſt from Jofferland diſtant one great leagne. Before old Longſound lieth a high round rocke, whereupon ſtandeth a great round Warder, for knowledge of this haven. Coninx-haven that is the ſouthermoſt or weſtermoſt channell of the Longſound, and goed in betwixt the weſtermoſt through point and Conings Yland, and then men run alongſt to the eaſtwards off the Baers, which lieth off from the foreſaid rough point. For to faile in there, you muſt run in amid channell: and anckor in the Coningſhaven in 28 and 30 fathom.

Coningshaven.

The Neſſe. For to faile into the Neſſe, that is on the north ſide behinde the eaſtermoſt point of Longſound (you muſt run through betwixt the great rock, whereupon the Warder ſtandeth, and the land of old Longſound, leaving the foreſaid rocks on the ſtarboard ſide, and ſo alongſt about that rough Yland, untill you come into the Neſſe, which lieth behinde a chindle ſtrand, there you ſhall lye under a chindle off rockes like red ſand: There lye alſo ſome litle rockes thwarr of that chindle. This is a good handſoom haven, and light for to come into, there it is 24 and 25 fathom deep.

A leagne to the eaſtwards of the Neſſe, or eaſt point of the Stavange. Longſound, lieth Stavange, that are ſome out-rockes, where men may faile within on both ſide, to the eaſtwards of it lieth the ſound of Laerwyck.

Laerwyke. The Laerwyk is a great broad Sound, where are many Bighrs and Lade-places, where men may lye and lade Firretimber. From the eaſt point lieth of a great rane of rocks a good wayes off ſoutheaſt and by eaſt into ſea, and run in almoſt halfe the Sound, called the Laerwykes Swines, where of men muſt take heed. Within in this Sound it is flat water and ſhould, ſo that farre within no great ſhips can lye a float.

Farder. From the Laerwyck unto the Iland Farder the courſe is eaſt northeaſt foure leagues, betwixt them both lieth the litle towne Tonsbergen in a great Bight. And from Farder to the Iland

Baſt. Baſt the courſe is north and by weſt five leagues, betwixt both lieth a fowle point. To the ſouthwards of Baſt lieth Markenboer, and the Bight of Aſko, buth to the northwards of Baſt lieth Lowſound.

Soenwater From the Iland Farder to the Soen-water, the courſe is north, but from Baſt north and by eaſt. The Soen-water lieth in moſt north. Upon it lye many havens and lade places, moſt on the ſtarboard ſide as you come in. Firſt there is Mos-ſound,

Wyckſtee. a haven that goeth up to the eaſtwards, & then there is Wyke-

Shiphill. ſtee, which is a bight behind and Iland, afterward Shiphill, a ſandbay and a very good road, that goeth ſo up alongſt to the northwards into Auſlo, and then it runneth about to the ſouth. wards into the Bottom.

When you faile from Farder or Baſt unto Soen-water, you ſhall meet with a red point, betwixt the Soen water and the

Copper- Copperwycke. He that is bound into Soen-water muſt run a-

wycke. longſt to the eaſtwards of it, but he that is bound into Copperwyke muſt goe up alongſt to the weſtwards of it and leave it on the ſtarboard ſide. When that you come within the Lams, you ſhall eſpie a litle Church upon the weſtland, there is the lade place of the Copperſlyke, you may ſail up from thence to Beakenes. On the north or eaſt ſide lieth Holmſound, from Farder to the point of Roge the courſe is northnortheaſt 5 league. At the eaſt end of Roge you may anckor, there is a plain

Roge. ſtrand, you may run through betwixt the Roge and the Calf, but anckor under Fletto, then you muſt run through within the two ſmall rocks.

The Siſters. From Baſt unto the Siſters the courſe is ſoutheaſt five leagues. Behind the Siſters to the ſouthwards of the point of Roge, lieth the haven of Elffang, diſtant from the Iland Farder northeaſt and eaſt 5 leagues. When you come of from Farder, you muſt run throug within the rocks, which lye within the Siſters, untill you come againſt the land, there you ſhall find a great gray rock, which you muſt leave on the larboard ſide, and the ſmall rocks that lye there within on the ſtarboard ſide, and then alongſt about by the weſtland, & then the haven opens it ſelf, which is narrow, and within flat and ſoft ground.

From the Naze (that is the ſouthermoſt point of Norwaye on the north ſea) weſtwards, the coaſt lieth ſomewhat alongſt by the land of Leeſt, weſtnorthweſt, but to the eaſtwardes off it (alongſt without the rockes untill paſt the Iland Fleckerie) eaſtnortheaſt abouth tenne leagues. From thence along northeaſt unto the Longſound about ſixteen leagues. This coaſt is al alongſt of high ſteepe ſtonie hilles, & without it full of manie rockes verie ſtrange to behold, but it hath manie faire deep havens, with verie good anckorground, where in great abundance of timber and boards laden. The firſt Havens to the eaſtwardes of the Naze, is called the Kloof or the Cowe & Calfe, The klo. Cowe an Calf. after two high hommockes, good to be knowne, the one ſomewhat greater then the other, which lye within the Haven upon the high land, and are ſo called by the Dutch Schippers. He that will faile into this Haven comming from the weſtwardes, ſhall meere with a greate rock ſomewhat to the eaſtwardes off the Naze, called Nelyn, whereupon is a Warder, being paſt that he ſhall find another out rock, whereupon ſtandeth alſo a Warder, called Sparrels. Betwixt theſe two out rockes, he muſt runne into this haven the Cloof. When he commeth againſt Sparrels, there lieth a funcken rock under water, where of the muſt take heede. Somewhat within Sparrels lyeth an other Rock in the farewaye, but above water, which he muſt leave on the larboard ſide. In failing in ſo, in the haven doth open it ſelf, by litle and litle, and ſo ſhall come againſt the Cloof: being come within it the muſt edge up to the weſtwards, about the poynt, and anckor there in a fand baye, in fifteen or fixteen fathom, ſo that the two foreſayde hommocks the Cowe and the Calfe ſtande about northeaſt from him.

A litle to the eaſtwards of Sparrels lyeth a Haven called Scarſound, or Weſtryſen, for to faile in there, you muſt leave Scarſound Sparrels to the weſtwards on the larboard ſide, and all the great Holmes or rocks to the eaſtwardes on the ſtarboard ſide, and runne ſo inwards untill you come into the haven.

Four leagues to the eaſtwards of Scarſound, lieth the Iland Holyſound Holyſound, whereupon ſtande two greate Warders, you muſt fayle in to the weſtwards of Iland, untill that you be within it, and anckor under the foreſayd Iland. Thwart of it runneth in a great Sound into the land, where you may fayle in, and where manie ſhippes lade.

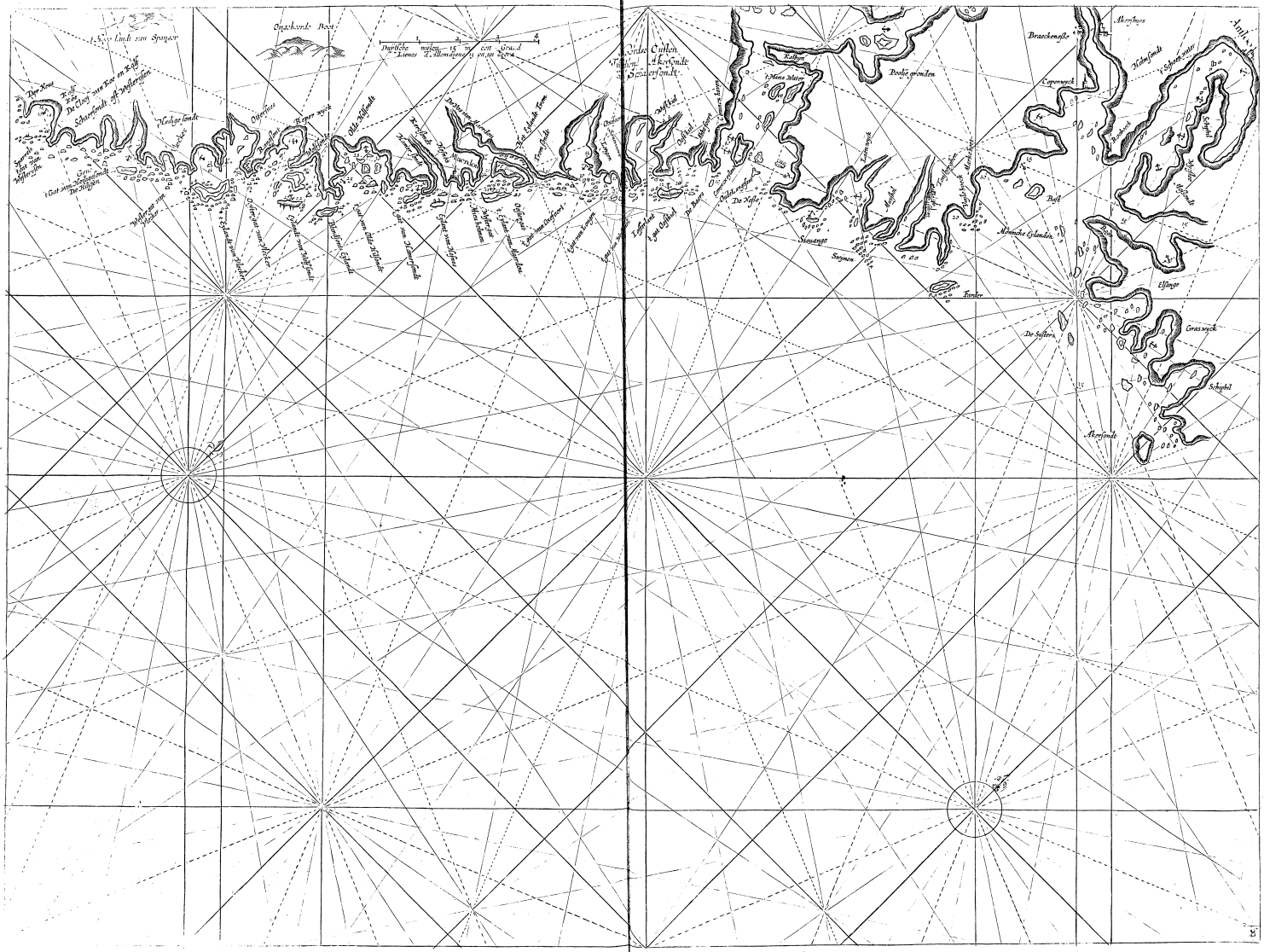
About three league eaſtnortheaſt from Holyſound and eig leagues to the eaſtwardes off the Naze, lyeth the haven and Iland Fleckerye, you may fayle in at both ſides of the Iland, as Fleckerie, well from the weſtwardes, as from the eaſtwards in to the haven of Fleckerie. The weſtergat lyeth in northnortheaſt. When The weſtergat of Fleckerie. you com of from Holyſound then you ſee open into the Sound, you muſt fayle alongſt by the Rockes without Holyſound, untill you come within the Iland Fleckerie, and edge the weſtwards towards the land, untill you come within the Dievehol-me, where the Gallowes ſtandeth upon, and anckor by the weſt land, in fifteene, fixteene, or twentie fathome: You muſt bring out there an anckor a head, and make a cable faſt on the rocks upon the land. You may runne from thence to the eaſtwards of the Iland Fleckerie, out againe at the Eaſter-gatte eaſtnortheaſt into ſea, and then you muſt leave the little Iland within the Warders, which lyeth at the eaſt end of the Iland Fleckerie, with all the greate rockes by it on the ſtarboard ſide, and all the black holmes on the larboard ſide.

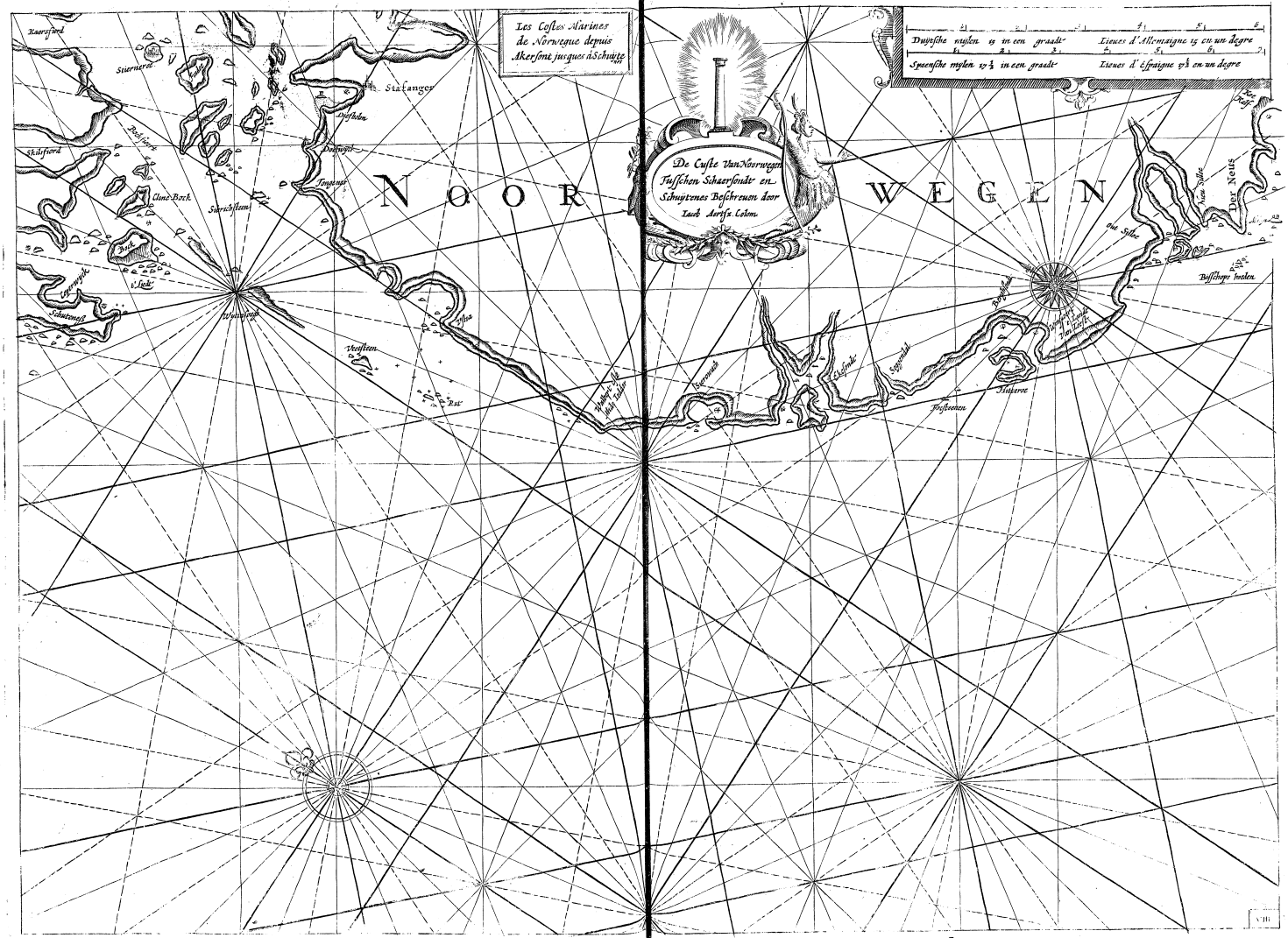
The Eaſter-gatte of Fleckerie goeth in weſtnorthweſt, be- The eaſter twixt the Iland Fleckerie and the pointe of Ranſound. When gatte. you come before it, you may ſee open in the Voſſe. For to faile in there, you muſt leave all the black rocks thwart of the point of Ranſound on the ſtarboard ſide, and the greate graye rockes with the litle Iland, where the Warders ſtand upon, on the larboard ſide, when as you come then by the fornamed Dievenholm, you muſt runne to the weſtwards of it into the Sandbay, and anckor there, as is before ſaid.

When you are thwart of the Eaſter-gatte of Fleckerie, then there lieth right thwart from you within the land a high round hill, which men doe call the Boate turned up ſide downe, which lieth out above all the lands there abouts, and comming from the weſtwards againſt Fleckerie, there ſhewe alſo three high double land, which by little and little ſeeme to goe to nothing towards the Drommels.

Three leagues to the eaſtwards of Fleckerie lyeth Reper- Reperwyk wyck, a broade and wide Sound, lying in north, and north and by weſt. For to fayle in there you muſt runne in by the land of Wolf-found (lying on the eaſt ſide of this haven) leaving all the rocks (and alſo where the maſt of Wolf-found doe ſtand upon) on the ſtarboard ſide, and all the rocks of Ran-found on the larboard ſide, untill that you come to the end, or within in the haven, and then you muſt edge up to the weſtwards about the point, and anckor there, that is a good haven for ſhips that are bound to the weſtwards.

On the


Ongeheurde Boot
Deutsche Meilen
Italiens
Allemagnes
Graden
Kopa
Der Noort
De Clauw
Schorsandt
Heiligen Landt
Oberton
Ruyter Hoyt
Wolfers zun Wolfen
Wolfers zun Wolfen
Wolfers zun Wolfen


Les Costes Maritimes de Norvegue depuis Akersond jusques à Schuyte
De Custe Van Noorwegen Tusschen Schaersondt en Schuytvenes Beschreuen door Iacob Aertss. Colom.
Duytsche mylen 15 in een graade
Spaensche mylen 17½ in een graade
Lieues d'Allemaigne 15 en un degre
Lieues d'Espaigne 17½ en un degre
NOORWEGEN
Stafanger
Schuytenes
Schuytenuss
Vlieland
Texel
Terschelling
Vlie
Ameland
Schiermonnickoge
Bosschop hoeden
Dry Noris
Hitkerre
Fostheeren
Tsterwoud
Elay Sande
Seggedil
Bergen
Ter Schelling
Ter Vlie
Ter Texel
Ter Helder
Ter Mase
Ter Goree
Ter Goes
Ter Brill
Ter Vlaerdingen
Ter Vlissingen
Ter Sluys
Ter Ysse
Ter Ysse
Ter Ysse

Wolfsound

On the east side off Reperwyck liet Wolf-sound, before it lye two great Ilands which shew themselves in high gray Rocks, with three or foure Warders upon them, whereby you may know them.

Wolfsound is a narrow haven for to sail into, there stand two masts upon the west land, where you must goe in close by, leaving them on the larboard side, and forthe little rockes on the starboard side, untill that you come within the greate Iland, whereupon the great Warders stand, there you may anckor, and lye landlockt for all windes. From thence you may runne foorth through within the rocks and come out againe into the sea, by the old Hill-sound, or you may runne out also at the Eastergatte of Wolf-sound, there standeth a greate Warder on the west side of the gaten, upon a round high rock, there you may saile out or in by it where you will.

Old Hill-sound.

To the eastwards off Wolf-sound lieth olde Hill-sound but betwixt them both, at the point off the west side off old Hill-sound lieth the Iland of Blind-sound, to the eastwards off it lye manie greate rockes, with two or three Warders upon them.

For to saile into the old Hilsound, you must runne along to the eastwards of Blind-sound with the rocks that lye by it, in by the west land, leaving them on the larboard side, & the foreside greate rockes or Holmes with the Warders altogether on the starboard side, there are divers faire sounds, where men may saile into and anckor in, without taking hurt. You may edge up to the westwards about the point, and saile through betwixt the Ilands, that you can not see the Sea.

Hamer-sound.

To the eastwards of old Hilfound lieth Hamer-found lying in northnortheast. On the west side of the havens mouth lieth a suncken rock which you must avoyd, and saile close alongst by the Iland, which lieth on the east side of the havens mouth, and anckor behinde the Iland right against the Warders, in thirtie fathom. The easter-gatte lieth to the eastwards off that Iland, in and out northwest, and southeast: upon the west side lieth a rock with a Warder.

Kerck-sound.

To the eastwards of Hamer-sound, men doe goe into Kerck-sound, and then a halfe league more to the eastwards lieth the haven of Hesnes. Upon the Iland of Hesnesse stand two Warders, twhart of them it is verie steepe, but to wards the little church it is showlder, to wete, about thirtie fathome: the out-rockes there abouts are all redde of colour.

Helsesse.

On the west side of the havens mouth lieth a suncken rock under water, called the Koenagle, upon the land stand two litle masts, when they come one in the other, then you are twart of the Koenagell. The two forefaid little masts, stand upon a graye Holme, leave that on the starboard side, and go so still inwardes, there it is high land, and the Drommels lye from thence northnorthwest within the land, there you may saile through within the rocks, untill you come into Maerdow.

Maerdow.

The Iland Maerdow standeth (upon the top of it) ful of trees, and round about it are all bare rockes. On each side off the Iland goeth in a channell. The westergatte or channell goeth in to the westwardes of the Iland, and the eastergatte to the eastwardes off it. For to saile into the westergatte, you must leave the Mewholmes (that are a fow rocks and Ilands to the westwardes of the Iland of Maerdowe) on the larboard side, and the Iland on the starboard side, and run in so betwixt them both northwest and by north, but with a southwest wind, you must saile in northwest. Upon the northermost Miewholme standeth a Warder

Thwart of the west end of the Iland Maerdow lieth a funeken rock under water, where of you must take heed, when you saile in thus to the eastwards of the Miewholmes. When you are come within the forefaid west point or the Iland Maerdow, you may runne up towards the northeast behind it, and anckor in 12 or 13 fathom, or saile up towardes the north-northwest into the Sound, and anckor there on the west side in 16, 14, or 12, fathom, according as you saile farre in. In the going into the sound, or haven, it is 34 fathom deep.

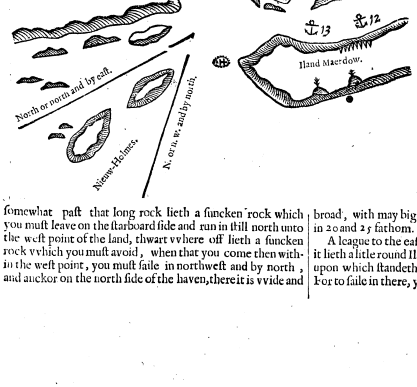
For to saile into Maerdow, through within the Newholmes.

With a bare winde, or otherwise, you may saile also into this wester-gat of Maerdow to the westerwards of Miewholmes, thus: To the westwards of the southermost Niewholme, not farre from it, lye two little rockes, even above water, and a litle further of from in two other rockes which are somwhat great, you must runne in amidst the channell through betwixt them, leaving the two smallest lying on the starboard side, and the two greateste on the larboard side, that channell lieth through most north and north and by east. Being come to the end of the Miewholmes, you may saile up either towards the northeast behinde the Iland Maerdow, or westwards into the haven, as is beforesaid. There goeth sometimes a good tyde out of this haven, & the westerly windes doe blow commonly out of this channell betwixt the high lands therefore he that will come in here with a westerly winde, must be very carefull, and keep up his top sailes, or els he showld lightly not be able to get the haven, but drive out of it against his will.

The eastes gat of Maerdow.

The eastergat lieth in westsouthwest there lieth a suncken rock on the starboard side, when you saile in, therefore you must run in close by the Iland. It is not deeper there in the gat or channell then three fathom, but being come within it, you shall finde it deeper, you may anckor there under the Iland in twelve or thirteene fathom, or you may run up to the westwards into the Sound, as is before said. To anckor under the Iland there is the showldest water, but with a northwest or northnorthwest winde, it is not so good to come from thence as out of the haven, but with an easterly winde it is better to set sail from thence and to get into sea. When the Drommels are northwest and northwest and by north from you, then you are right thwart of Maerdow. If you run in so out of the sea, right with the Drommels, you shall fall right with Maerdow, that is a certain marck to know whether you be thwart of Maerdow, or tho the eastwards or the westwards of it, but when you are close before the land, or before the Havens mouth, you can not see the Drommels, because they are then hidden of the cliffeland.

Marcks of Maerdow.



About halfe league to the eastwards of Maerdow standeth a litle white Church upon the sea side, to the eastwards of it goeth in the Trom-sound, being a faire Sound. Without in the comming in, stand on the east or north side two Warders upon a high hill, you must saile in by them, and thwart of them you may also anckor, and from thence you may saile in furter behind the land Trom, and the land of Maerdow, untill you come into the Sound of Maerdow.

Trom-sound.

About a league to the eastwards of Trom-sound lieth the haven of Oxeford, which is a great broad, and large Sound, lying in first without betwixt the rocks, north. Without in the comming in to the vvestvvards of the havens mouth, lieth a long rock, vvhich you must leave on the larboard side, and somewhat past that long rock lieth a suncken rock which you must leave on the starboard side and run in still north unto the west point of the land, thwart where off lieth a suncken rock vvhich you must avoid, when that you come then within the west point, you must saile in northwest and by north, and anckor on the north side of the haven, there it is vvide and broad, with may bights, where you may anckor every where in 20 and 25 fathom.

Oxeford.

A league to the eastwards of Oxeford lieth Longen before it lieth a litle round Iland or rock on the east side of the haven, upon which standeth a mast with a barrell upon a Warder. For to saile in there, you must run in close by that land where

Longen.

the Warder with the barrel ſtandeth upon, cloſe alongſt by the Warder, but there ſtandeth a hand on the ſtarboard ſide of the havens mouth, which pointeth that there lyeth thwart of it a funcken rock under water, there you muſt edge ſomewhat off from the ſhoare. Being within there, you may run to the eaſtwards againe into ſea, and come out in the Sound off Sandvoordt.

When you are before Oxeford and Longen then the Dromels lye about weſtnorthweſt from you.

A great league to the eaſtwards of Longen lieth Sandfort. For to ſaile in there you muſt leave all the litle Rock on the ſtarboard ſide, and run ſo alongſt by the land untill you come within the Longholms which remain on the larboard ſide, and then right into Bight. This is a faire haven men come into it from the eaſtwards. Thwart of Sandvort lyeth a banck at Sea, which at ſome places is not deeper then 3, or 4, fathom, and lyeth alongſt to the eaſtwards untill thwart of Weſtkiell.

Markes of Oxefoort & Longen Santvoort.

Weſtkiel.

A league to the eaſtwards of Sandvoort lieth the haven off Weſtkiell, a little to the eaſtwards of it lieth Jufferland. For to ſaile into Weſtkiel, you muſt leave all the great roks (which lye of from Iofferland on the ſtarboard ſide,) and all the foreſaid little rocks of Sandvoort, and alſo a white holme whereupon a maſt ſtandeth on the larboard ſide, & run in ſtill northweſt and afterwards northnorthweſt and at laſt north, untill you come about the weſtpoynt, and then you muſt edge up northweſt to the northſide of the Ylands which ly within the haven, there is a Voſſe, or an Overfall of water, there you may anckor in 20 or 25 fathom.

Iofferland.

When you come before Weſtkiel, you may ſee within the land three high hills, and alſo the high land of Longſound, lying northwards from you, that land is altogether very good to be knowne, be that ſeeth it once, and taken regard of it, ſhall know it very wel another time, when he commeth thereabouts.

The Baers.

From the northermoſt rocks of Ioffer-land unto the Baers, that is the ſouthermoſt or weſtermoſt point of Longſound, the courſe is northnortheaſt a great league. Betwixt them both lye two havens Eaſtkiel and Abbefoord, men ſail in there to the eaſtwards of the out rocks of Iofferland. From theſe foreſayd northermoſt out-rocke of Iofferland unto Eaſtkiell, it is northweſt about a league, but to Abbefoort northnorthweſt and north and by weſt alſo a league. Men may (comming from the ſouthwards, or from Weſtkiell) ſayle through within Iofferland, into Eaſtkiell, or Abbefoort.

For to ſayle through within Iofferland from weſtkiel, the Sound lyeth through the channell firſt northeaſt and northeaſt and by north, and then eaſtnortheaſt, and afterwards againe northeaſt, and then you come to a place where the ſound is ſomewhat broader, there lyeth a funcken rock, which you muſt leave on the ſtarboard ſide, and edge to the north ſhoare. Being paſt that, you ſhall come againe in a very narrow ſound which lyeth through moſt northeaſt, and is at ſome places ſo narrow that the yard armes doe almoſt touch the rockes. Being through that narrow place, you muſt goe northeaſt and by eaſt, and eaſtnortheaſt, untill you come thwart of the Longſound, then you may ſayle in there northnortheweſt, or ſayle into the ſea as you will: Behinde Iofferland you may alſo anckor in 15 or 20 fathom.

Road behinde Iofferland.

A little to the weſtwards of the poynt of the Naze lye two havens, New and old Silloe, or Silleu; ſome doe call theſe one haven (like as alſo men may doe) and biſtinguiſh it with an eaſter and weſter-gat or Haven, for men can goe with boats through within the rockes from the one into the other, but not with great ſhips.

Silloe.

For to ſayle into the caſter-gat, or new Siloe you muſt take heede of the Biſhops Boeden, which are a few out-rocks a litle to weſtwards of the point of the Naze, right before the middeſt of the ſound, leave them on the larboard ſide, and ſayle in alongſt by the land of the Naze untill you come ſomewhat within the foreſayd Biſhops Boeden, and then you ſhall finde there alſo a funcken rock, which you muſt avoyd, run about to the northwards of it & edge then up to the weſtwards behinde the Yland of New Silloe, and anckor there againſt the white Church within the foreſayd rock.

Old Silloe.

For to ſayle into the weſter-gat, or old Silloe, you muſt run about to the weſtwards of the out-rocks, and Biſhops-Boeden, and ſaile right with the ſouth end of the land of Leeſt; being come by it: run to the eaſtwards alongſt by it, but take heed of ſome rocks, which lye of from the innermoſt Yland on the ſtarboard ſide, being there within anckor againſt the Yland, where you pleaſe.

The land of Leeſt.

From the Naze to the Yland Hitteroe, or Hitteren, the coaſt lyeth alongſt the land of Leeſt weſtnortheaſt 5 leagues. To the ſouthwards or the weſtwards of that Yland men doe ſayle into the haven of windſoord, which lyeth in northeaſt, but to the northwards of it men doe run into Berg-ſound, eaſtnortheaſt in betwixt the Yland and the land.

Hitteroe.

Windfoort.

Bergfound.

In that Iland is alſo a good haven, which you muſt ſaile into from the northwards, the havens mouth is not very wide when you are come in within it, you may edge up to the eaſtwards or ſouthwards, and anckor.

Two leagues to the northwardes of Hitteroe lyeth a haven called Soggendall, there lyeth a litle Yland before it, within men may anckor, it is a good road for them which are bound to the ſouthwards. Betwixt them both, not farre without the land lye two out-rocks alongſt the ſhore, called Fockſtones, the one lyeth a little more to the ſeawards then the other.

Soggendall.

A league to the northwards of Soggen-dall lieth Ekefound, before it lieth an Iland, which you may ſaile into on both ſides of it, the ſouthergat lieth in northeaſt, being come in there you muſt anckor on the north ſide of the haven in a bay, there is the beſt road in 8 or nine fathom, the norther-gat lieth in to the eaſtwards, being come in there, you may anckor at divers places. A league to the northwards of Ekefound lieth a haven called Sierowach. For to ſaile in there, comming from the northwards, you muſt run in right with the ſouthermoſt ſandbay untill you come cloſe by the ſhore, and then the haven doth open it ſelfe, loof up cloſe alongſt by the north ſhore, then run up by it to the ſouthwards, and avoyd the weſt point, thwart of it lieth a funcken rock twelve foot under water; being there within, let you anckor fall in 7 or 8 fathom, and bring a cable on the weſt ſhore, then you ſhall lye land-lockt for all windes. This a good haven for thoſe which are bound to the northwards.

Ekefound.

Sierowag.

To the northwards of Sierowach lieth the land the Jedder, which lieth from Sierowach firſt northweſt and by north two great leagues to point Walbert, or Mids-jedder, and the north 4 leagues, which is altogether a clean whole coaſt, without any dangers or havens, except at the very north end, from which runneth off a litle riffe northweſt into ſea, towards the Veeſtone.

The Veeſtone is a great rock, lying about two leagues without the land, lying northnortheweſt from Mids-jedder five league, betwixt them both, a great league to the ſouthwards off the Veeſtone, lye ſome low black rockes, called Rut. When as you ſaile from Mids-jedder on northnortheweſt towards the Veeſtone, then the Veeſtone doth ſhew him ſelfe very round, like a hay-cock, and ſailing ſo, you might lightly fall with the foreſaid rocks of Rut, but being a litle more to ſeawards, the Veeſtone ſheweth it ſelf a little longer on the weſt ſide, then you can not take hurt of the rocks of Rut.

Veeſtone.

Rut.

About two leagues northnortheweſt from the Veeſtone lyeth and Yland, whereupon ſtandeth a Church called Whitings eye, but northnortheaſt from the Veeſtone 4 leagues, lyeth another Iland before the ſound of Stavanger, called Sibrichſtone.

Whitings-eye.

Sibrichſtone.

If you will ſayle into Stavanger comming from the ſouthwards, then ſayle through betwixt the Veeſtone & the maine land, leaving alſo the foreſaid rocks of Rut, lying on the ſtarboard ſides but you muſt take very good heed of that litle ſtone-riff which lieth of from the northend of the Iedder, ſaile in ſo untill that the Veeſtone doe lye ſouthweſt from you, then goe in northeaſt towards the point of Tongenes, which is a long point and low land on the ſouth ſide of the ſound.

Tongenes.

When as you ſayle now from the Veeſtone towards Tongenes, then you ſhall ſee that Iland Sibrichſtone before the ſound, which doth ſhew it ſelf in two parts, leave that on the larboard ſide, and ſayle in by the point of Tongenes, but there lieth a rock off to the northwards from the poynt: ſayle through betwixt the rock and the point, about eaſt or eaſtſoutheaſt into Doeſwycke; when you are within the caſtle of Doeſwycke, there you may anckor. But if you will ſayle in further before the thown of Stavanger, then leave the Dieſholm on the ſtarboard ſide, and ſayle in eaſtheaſt, and ſouthſoutheaſt before the towne, and anckor there where you pleaſe.

Doeſwyk.

Stavanger

But when as you come from the northwards, and will ſayle to Stavanger, then run through betwixt the Veeſtone and the Whitings eye, & then goe on northeaſt towardes Sibrichſtone, and the point of Tongenes, and doe further is hath been before thaught.

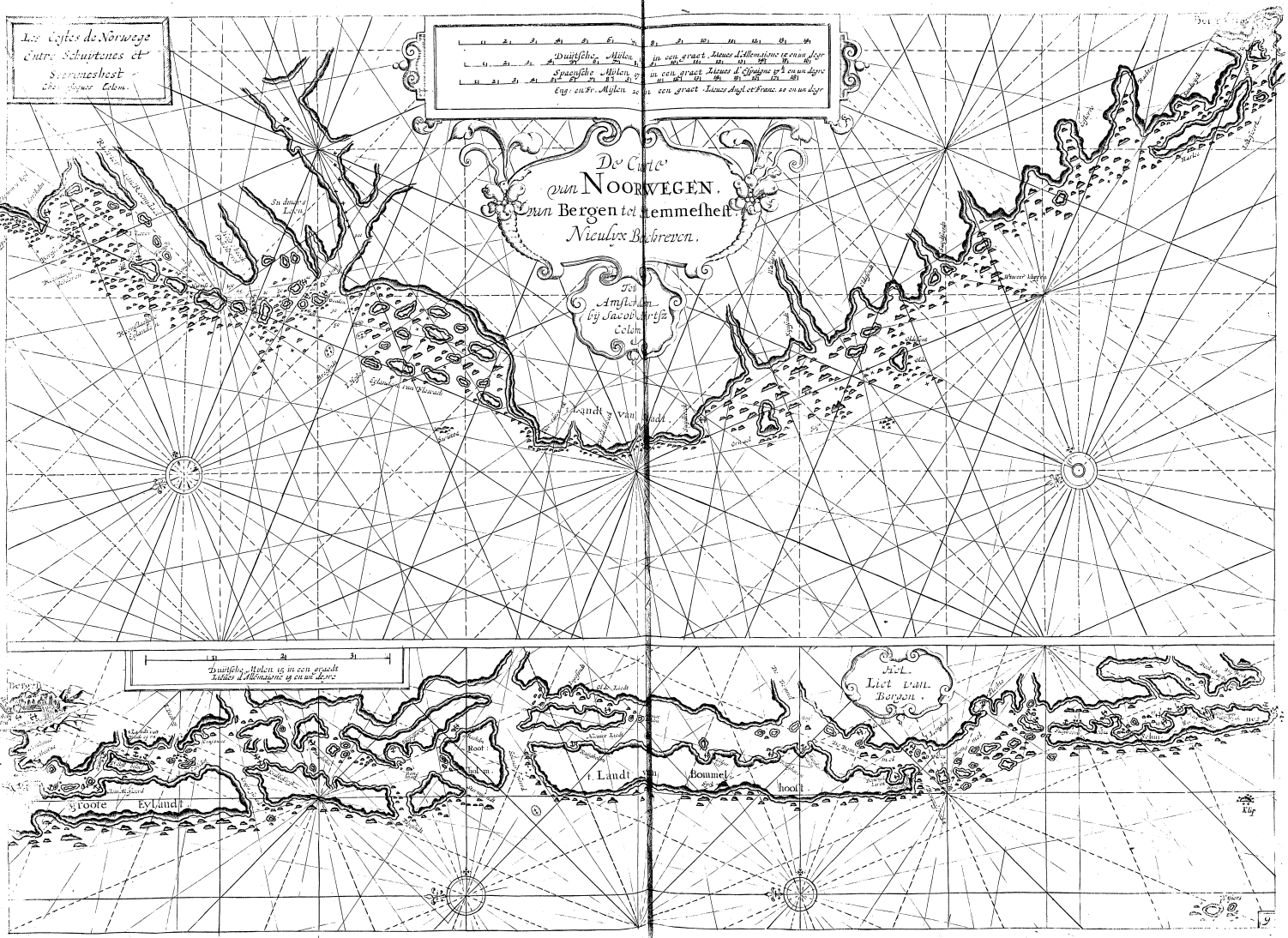
Schuytenes.

From the Veeſtone to Schuytenes, the courſe is northnortheweſt five leagues: but from Schuytenes to Sibrichſtone through betwixt Withings-eye, the courſe is eaſt 5 leagues.

Foure leagues weſt and weſt and by north to ſea wards from Schuytenes lye the rocks called the Outſeers.

Outſeer.

of


Les Costes de Norwege
Entre Schiirtenes et
Stermeshest
Chez Jaquer Colom.
Duitsche Mylen
Spaensche Mylen
Eng: en Fr. Mylen
De Caerte
van NOORWEGEN,
van Bergen tot Stemmelhest.
Nieulyx Beschreven.
Tot
Amstelodam
by Jacob Aertsz
Colom
Landt van Hadt
Wester Aarden
Duitsche Mylen is in een graadt
Lieues d'Allemagne 15 en un degre
Root
Bonmel
hooft
Ey Landt
Klip

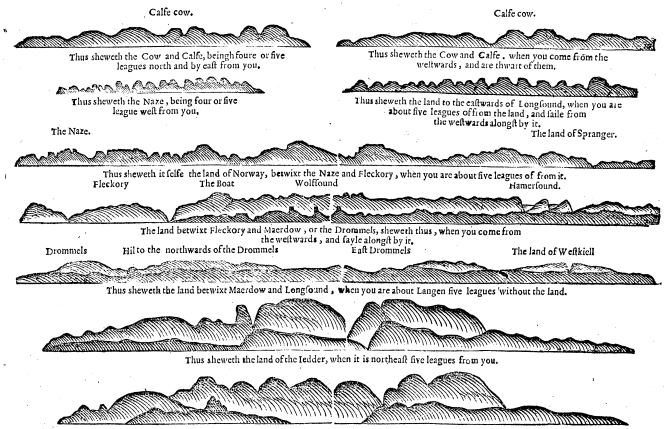
Of the streames on these coasts.

On these Coastes of Norway of from the Naze, untill past Bergen unto Srade, the water riseth and falleth, but keepeth no certaine tyde: but from thence towards Dronten, and to the northwards of it, it keepeth tyde according to the moone, like as in other places.

Howw these landes doe lye one from the other and from other lands.

From Hand Farder to the Longsound westsouthwest.	8 leagues
From Farder to Larwyke westsouthwest.	4 leagues
From Monck Hand, or Roge to farder, southsouthwest	5 leagues
From Bast to farder south and by east about	5 leagues
From Soen-water to farder south or somewhat more westerly	8 leagues
From Copperwyck to the Bast south and by east	4 leagues
From Redpoint to the bast westsouthwest	4 leagues
From Sisters to the bast northwest	5 leagues
From Aker-sound to the Sisters west, and by north	4 leagues
From Scharesound to the Naze westsouthwest	3 leagues
From Flechory to the Naze westsouthwest	8 leagues
From Rut to the Veerstone north and by west	a league and a half
From the Veerstone to Schuytenes northnorthwest	5 leagues
From Sibirichilone to Schuytenes through within Whitings eye west	5 leagues
From the Naze to Ourfeers the course is northwest	19 leagues
From the Naze to Hitterose the course is westnorthwest	1 leagues
From Hitterose to Ekefound the course is northwest	4 leagues
From Ekefound to Sierowach northwest and by north	1 leagues
From Sierowach to Mids-ledder, northwest and by north	2 leagues
From Mids-ledder to Rut the course is northnorthwest	4 leagues
From Wolf-found to Fleckory or Reperwyke to the Naze W. S. W.	3 leagues
From Blind-found to Wolf-found southwest	3 leagues
From Maerdow to Blindfound southwest	4 leagues
From Maerdow to Wolf-found or Reperwyk westsouthwest	8 leagues
From Iofferland to Maerdow southwest	8 leagues
From Eaitryfen to Maerdow southsouthwest	3 leagues
From Longhfound to the Iofferland southsouthwest	one great leagues
From Iofferland to Fleckory southwest	19 leagues
From Wolffound to Fleckory W. S. W. and f. w. by west about	2 great leagues
From the Naze to the Holmes in Iutland southeast	19 or 20 leagues
From the Naze to Iowenbergen southeast and by south	21 leagues
From the Naze to Holyland the course is south and by east and southsoutheast	67 or 68 leagues
From the Maze to the Eems, south, somewhat easterly	75 or 76 leagues
From the Naze to Born-riffe, south, somewhat westerly	83 leagues
From the Naze to Teffel or Maersdeepe, the course is south and by west distant	93 leagues
From the Naze to Walcheren south and by east	125 or 126 leagues
From the Naze to the Heads, or the Strait betwixt Calice and Dover, the course is southsouthwest, or somewhat more westerly	143 leagues
From the Naze to the Holmes before Yarmouth southsouthwest, somewhat westerly	104 leagues
From the Naze to Flambrough head southwest	102 leagues
From the Naze to Scarborough southwest	99 leagues
From the Naze to the river of Newcastle southwest and by west somewhat westerly	104 leagues
From the Naze to Liet in Scotland W. S. W. somewhat westerly	103 leagues
From the Naze to Bocckneffe west somewhat northly	88 or 89 leagues
From the Naze to Fayrhil westnorthwest	93 leagues
From the Naze to Iutland the course is n.w.and by w.about	100 or 101 leag.
From the Kloof or the Cow and Calf to the Scaw the cours is east and by south, somewhat easterly	30 leagues
From Fleckory to the Holmes in Iutland southeast and by south	19 leagues
From Fleckory to the Scaw east and by south	25 or 26 leagues
From Reperwycke to the Scawe east and by south and E. E.	22 leagues
From Maerdow to the Holmes the course is south	14 leagues
From Maerdow to the Scaw southeast and by east	20 or 21 leagues

How these Lands doe shew themselves at sea.



The seventh Demonstration,

In which the Liet of Bergen, and the north coasts of Stemmes, Hest are delimiated.

BEtwixt Schuyteneſſe and Bock goeth in the Liet of Bergen. Schuyteneſſe is about foure leagues long, at the south end lye some suncken rockes and fowle grounds, for the avoyd them comming in out of the sea, you must keep the top of Bock a little without the point of Schuyteneſſe, and then you shall goe cleare of them; But if you bring Bock close by or to the point of Schuyteneſſe, and saile so right in for to runne about close by the point of Schuyteneſſe, you shall surely sayle upon those foresayde suncken Rocx and fowle grounds.

From the south-end of Schuyteneſſe, the Liet lyeth in first north and north and by west two leagues to the great Warder, which is a road so called after four great Wardes, which stand there thwart of it upon the land of Schuytenes, for the knowledge of this road: there lye commonly the ships that tarry for a wind, being bound either to the northwards or to the southwards, there it is a very good lying in five, six, seven or eight fathom, as well for northerly as southerly winds, you may also anckor to the northwards of the Warders about a point in five, six, eight, ten and twelve fathom, there you shall lye landlockt for southerly winds.

The great Warder.

A little to the southwardes of the Wardes lyeth a Bay, called the Coperwyke, within it is also a good haven for ihem which are bound to the eastwards, and will set sail with a west wind: when a easterly or northerly wind, you can not well shift roads from thence or come out. At the comming in to this Baye lyes a suncken rock, called the Coppernaile, upon it standeth all wayes a great Pole, where by you may see to avoit it.

Copperwyke.

Coppernaile.

Without at the south point of Schuytenes on the east side is also little Bay or two, where men may anckor.

A little

A little to the northwardes of Bock, on the east side of the Liet is also a Bay, called Bockhaven, where men come to anckor.

Bockaven.

All these roads, as also the Copperwyke, are good for those which comming from the southwardes, by reason of contrary winds can not get to the great wardes.

A little more southerly then the Coperwyke, on the east side of the Liet to the nortwardes of the Bock, lyeth in north into the land, a Sound, which sheweth it self (when you come from the southwardes) much broader then the right fare way, so that those that are not there very well acquainted, should not think otherwise, but that it was the right channell, and so should lightly go up a contrary way. Therefore it is necessary and needfull to fail close alongst by Schuytenes, and not goe off from the west shore, until you come thwart of Copperwike, then you shall be within the point of the forefaid Sound.

About a great halfe league by north the great Warder, lieth thwart of it in the Bay is also good anckoring for northerly winds, and good road for men which are bound to the northwardes. Likewise it is good anckering by north the point of Notou, for them which are bound to the southwards. Allmost at the north end of Schuytenesse, is also a road, called Sichstreame, where is also good lying.

Notou.

Sichstreaw.

At the north end of Schuytenesse lieth a little Iland when you saile up or downe the Liet, you can see through betwixt them into sea. At this Iland is also a good road under a rocke, or Iland, called Wybrants-eye, there it is good Anckoring for all windes.

Wibrants-eye.

Betwixt that forefaid Iland and the maine land, you must saile through a narrow strait, which is but a little more then a shippes lenge broad; on the east side where of, which is on the side of the maine land, there lieth a little rock, or suncken rock, therefore you must saile close by the west side that is close alongst by the Iland for to avoid the forefaide rock.

From Wybrants-eye over the Bommel to the Blockx, the course is northnorthwest, but first somewhat more westerly about two leagues, betwixt them both it is on the West side a broken land, great and little Ilands and rockes. About halfe waves betwixt them both goeth a channel into sea, where men doe saile much in and out, and it is cleane, broad, and wide. He that will runne out there (comming from the northwards) may easily espye it, when he is a halfe league past the Blockx. On the west side lye two little Ilandes or great rockes, which shewe much greater then the other rocks, these you must leave on the larboard side, and run out by them south southwest into the sea.

The Bommel.

He that will runne in here out of the sea, he shall (when he commeth to the end of Schuytenesse) see many little Ilands or rocks, he must saile past all these, untill that he get sight of those forefayd two great rocks, and then in by them leaving them on the starboard side, and so he shall come somwhat to the southwardes of the Blockx or Longholme into the Liet.

The Blocx.

The Blockx are two rockes, lying very neare even with the water, which you must leave on the larboard side, in sailing up, and runne close alongst by the east shore, through betwixt the Blockx and Longholm. Longholme lyeth a little above the Blockx, within it is a good Haven, where is good lying. A little to the northwards of it lye two rockes more, thwart of them lyeth a suncken rock which you must avoyd.

Longholm

From the Blocx alongst over the Bommel it is yet 2 leagues, first north, and then northnortheast, all alongst by the land of Bommelhead, the south end of this land is a high steepe point, called Bommelhead, to the southwards of it runneth a channel westfouthwest into the sea called Bommel-found. This channell is good for to know, comming in out of the Sea. The land of Bommel-head is about 4 leagues long, and the first long Iland to the northwardes of Schuytenesse, it is altogether low plaine land except on the south end, which is so steep a point, as it if were hewen right off with and Axe. About the middeft between both ends of this Iland (on the Sea side) lyeth a very high round hill, called Sick, of fashion almoft licke a sugerloafe or a mans hat, and lyeth farre above all that low land, which you may easily see at both the ends of this Iland, and also further, where by it is very good to be knowne.

Bommelfound.

Sick.

Bommelhead.

For to saile into this forefaid channell out of the Sea, you must bring that steepe point of Bommell-head eaftnortheaft, or somewhat more northerly from you, and saile then towards it. And then you shall leave a great many little Ilands and rocks on the starboard side, and the forefaide point on the larboard side, and close in about by it to the northwardes.

A little about this point of Bommel-head, on the Innerside, lieth a Haven, called Bommelhaven, there lieth a rock before the mouth of it, and also a suncken rocke betwixt that rock and the north point of that haven: He that will go in there, must go into the southwards of the rock, in betwixt the south point and the forefaid rock, leaving the rock one the starboard side of him. So soone as men are with in the haven, they must let fall their anckor, within it is broade and wide, and men lye there landlock for all winds.

Bommelhaven.

At the end of the Bommell lyeth Munsterhaven in the land of Bommell-head, on the west side of the Liet, even about the point. This is also a good haven for them which are bound to the southwardes, and by reason off contrary windes can not get further, there standeth a little white church thwart of it men muft anckor in ten or twelve fathom.

Munsterhaven.

From Munster-haven to Beul-haven it is north an English mile, there is also good anckoring for southerly windes, further it is north, somewhat easterly to Volger-road, before it lieth a little Iland, under it, or by it on the one side or other men may anckor for all winds. Men may also saile rond about it, and run in and out at both sides of it, if they will.

Beuls-haven.

Volger-road.

From Munster-haven to Bremerholme the Liet lieth north, somewhat eafterly about two leagues, there the Liet is devided into two parts, to wete, into the Old and the New Liet: The old Liet gooeth through to the eaftwards of Bremerholme and the Iland that lieth to the northwards of it, but the new land alongst to the westerwards of it.

Bremerholm.

Diefholm.

The Olde Liet is not wel to be used by them, which are not of three very well acquainted, also great ships that draw twelve or thirteen foot, may not goe through three.

Old Liet.

Somewhat more then thwart of the middeft of Bremerholme, in the narrow of the Old Liet, lieth a fhould whereupon is no more then thirteene or fourteene foot water. A little from the northwardes of it on the east fhoare lieth a bay called Ingefound, where is good anckoring: there lieth also a bay on the west side, halfe waves betwixt that forefaid fhowld and Bremer holm, where men also may anckor.

The new Liet is broad and deepe enough. Thwart of Bremer-holme, in the fareway, neareft the west side, lieth a suncken rock, where of you muft take heed. For to avoyd it, you muft marke the Iland before Folger road. If you keep it so that you may see it without the north-point of Folger-roade, then you can not come to neare that suncken rock: but if you bring that Iland behind the forefaid point, so that you can not see it, you shall without faile faile right upon it, you muft observe these marks as well in failing up as in failing off.

New Liet.

In the middeft of the New Liet lieth Ruige-holme, there men lye with shippes fast unto two Rings: the one is upon the Iland, and the other upon the point to the northwards of it, where they bring out Cables to.

Ruigeholme.

From the New Liet to the point of Rootholme, it is northnortheast a halfe league, betwixt them both goeth out the Soltmerfioerd westfouthwest into sea, which is a faire broad and large channell. On the south side lye some suncken rockes, but if you run out amid the channell, you can take no hurt of them.

Redholm.

At sea men doe knowne this Soltmerfioerd by that forefaid high and round hill Sicke, which is very good to be knowne, and lyeth two leagues to the southwards of it, about halfwayes betwixt this Sound and Bommel-found. The land on the south side of Soltmerfioerd towards Sick, are small white rockes, which you muft leave on the starboard side, and runne in so amid the channell eastnortheast, and then you can take no hurt of those forefaid suncken rockes, lying on the south side of this channell. There lyeth also a suncken rocke at sea before this Sound on the south side a little off from the north point of the land of Bommell-head, with hard winds out of the sea, the sea breaketh very much upon it, but it lyeth at least 5 or 6 fathom under water.

Soltmerfioerd.

Sick.

When as you come in here, you have Redholm on the larboard side, and you muft run northeast alongst by it, untill you come about the forefaid point.

From the point of Redholme to the Narrow it is north, and through the Narrow northnorthwest and north & by west at least a halfe league. In this strait it is so narrow, that you can but even turne throught it on the west side of the strait lieth a little Iland, thwart of it is good anckor-ground in 13 and 14 fathom.

Redholm.

From the straite to the Reine Knape, the course is northwest, and by north two leagues: this is a little Iland without trees, cleane round about, which you may fayle about on both sides.

Reine Knaep.

Thwart of Reine Knaep on the east shoare lyeth Deepe-found a good haven for them which are bound to the southward, the mouth of it is narrow, and also but three fathome deepe, but within it is broad and large, and twenty fathome deepe

deepe. Alongst to the westwards of the Remknaep, it is broadeft, to the eastwards lyeth a point, and by it a little Iland you may faile through betwixt the point and the little Iland. From the Rainecknaep to Bagholme, the course is north and by east a great league: Betwixt them both by some Ilands and rocks, all which you muft leave lying on the starboard side, there you may at divers places faile through and within these Ilands and rocks, an I at laft come out against by Bagholme into the Liet, but it is not to be done but for them that are there extraordinary well acquainted. Men might lightly get in amongst these Ilands and rockes, fo that then should not know how to come out againe. At the east side of Bag-holm men may anckor, but there shooteth off a little ledge of rocks from the north end, whe reof they muft take good heed.

Deepe-found.

Remknaep.

Rainecknaep.

Bagholme.

From Bag-holme to Crab-kerke it is north about 3 quarters of a league, this is an indifferent have for southerly winds, but it is litle, there can lye no more then 2 or 3 shippes.

Crabkerke.

From Crabbekerke to Bock up Ra, it is north, somewhat eafterly a league, betwixt them both runneth out the Crosse-found, or Cruyfvoert W.S.W. and southwest and by west into Sea, which found is very good to be knowne at Sea, (by three hills) almoft like the Drommels on the east side of Norway, but not to high which lye thereabouts within the land, which are also called by some the north Drommels, when they are northeast, or thereabouts from you, then you are open before the Crosse found. Before the mouth of it lieth a little Iland neareft the south side, from which lye of some rockes to Seawards, the broadeft and largeft channell is alongst to the northwards of it you may well also fail through to the eaftwards of the Iland betwixt it and the land, but there it is narrow, yet cleane and cleare without any dangers. When you are within it you muft goe in alongst eastnortheaft and northeast and by eaft, and so shall come into the Liet against Cruyfenes, a little to the Southwards of Bock up Ra.

Cross-found.

North Drommels

Bock up Ra.

Bock up Ra is a litle Iland which you may faile about on both sides, alongst to the westwards of it is the common fareway, and also deepeft. When as you saile a bout to the eaftwards of it, and come to the north end of Bock, there it is very narrow, and there right in the fareway (somwhat nearer the east shoare then Bock) lieth a suncken rock, there standeth always a pole upon it, for to avoid it, you muft leave it on the starboardside, and run alongst to the westwards of it. Betwixt this Rock and Bock, it is no deeper then 16 foot. Right to the westwards thwart of Bok lieth an other Iland, under it you may also anckor in Beck Iet. To the westwards of this Iland goeth through the Cabbelet, which men doe faile throug h with bare winds, or when they muft run through, because it is broader then on either side of Bock up Ra.

Waring stream.

From Bock to the Watting stream it is north a league, there you can not faile amisse. If you doe not faile against the land, for there lie no dangers, except at the westshore lieth a sunken rok close by the land, whereupon remaineth at low water about 10 foot water. Upon the end of Watting stream, the course is northwest about a shot of a caft peece, or a quarter of a league, and then you come thwart of litle Alefioerd, which is a haven on the westshore, where is good anckoring both for a north and south wind, under a high round Iland, where you shall lye landlokt. From thence to the Reestone it is north about two leagues, betwixt them both on the westshore lieth great Alefioerd, which is also a haven both for northerly and southerly winds, thwart of it the fareway is about 2 musket shot broad. The Reestone is a rocke under water, lying by the point, where the two high hills standeth, which men doe call the Lethoorns, these are two high sharp hilles, which men may see farre of, as they saile up or of that Liet. Upon the Reestone standeth allwayes a Pole, that thereby men may avoid it. You may also sail alongst to the eaftwards of it, but to the westwards of it is broadeft, and the right fareway, over against it on the westshore lieth Knorwyck, a haven where men may also anckor.

Litle Alefioerd.

Reestone Great Alefioerd.

Lethorns

Knorwyck Werckenes

From the Reestone to Werckenesse, the course is eastnorth eaft about a quarter of a league, and then you leave the Iland Aſland lying on the larboard side to the northwards of you, it lye also two havens where you may also goe to ankor, the one called Struyshaven, and the other Schoonhaven. To the westwards of Aſland you may faile to Ieltefioerd, and run out thereabout northwest into the Sea.

Struys haven, schoon haven.

When you come out of the Sea into Ieltefioerd, then you come into the Westwards of Aſland against the Reestone into the Liet.

At the south point of Aſland lieth Ieltefschaer, a litle round Iland or rock, whereupon standeth a great Iron ring when as men com up the Liet & with calmes are in danger to be drived with the current to the northwards along by Aſland, then they bring with the boat a cable fast on it, men may wend round about the forefaid rock without any danger.

From Werckenesse to Horneſſe, it is east a little distance: when you come by it, you may see the towne of Bergen lye before you, you muft anckor before it in the Wage, in 11, 12 or 13 fathom.

Horneſſe

To the northwards of Aſland lieth the Iland Harle, which is about 5 leagues long, when you come from the northwards, you may run about it on both sides, and so come into the Wage of Bergen. The Harlefioerd goeth out about north and by W. and N.N.W. betwixt Aſland and the land of Harle.

Harle

From Ieltefioerd, or the Wage of Bergen, to Olde, the coast lieth N.N.W. and north and by West about 16 leagues, that is al broken land, with many rocks, where men may faile through within them. The Norway Barkes come off from Stade, all alongst through that broken land and rocks, and within the Iland Harle unto Bergen.

About foure leagues and a halfe to the Southwards of Old, lieth a great row of rocks, lying 3 or 4 leagues without the other rocks, thwart of from the shoare to seawards, called the Outweers. Betwixt them and Old lieth a good haven, called Southfoore, there lye 3 Ilands before it, where men run in betwixt them both alongst into the Haven.

Outweers

Olde.

Olde is a high rock, a good wayes from the land, and loose from the other rocks by the land, but hath some small rocks lying about it, there lieth also a row rocks, a good wayes of from it Southwest into the Sea.

About N.W. and N.W. and by North from Olde lye two rowes of rocks, whereof some lye above and some under water. When as you are either to the northwards or to the southwardes of Old, it doth shew it selfe with a great saddle, in 2 hommockes, and going downe round on both sides, but being thwart off, or Weftwards from it, them it lieth in one round hil, almoft like Coll. You may (comming from the southwards) runne in about the eaftwards within Old, northeaft to Oldefound, and come out againe to the northwardes of Olde. Foure leagues to the northwardes of Olde-found lieth Kyn, also some Godsche-sand, and a little to the South-wards of it, somewhat further in a great black Rocke, of fashion like a Hay-kock, or allmoft like a Sugerloafe, it is called

Kyn.

Waldree Eafterdal.

Ornael.

Stadet

North point of Staden.

Havens on Stade.

Swynoe

Broadmer, Found.

Goedeu.

by the saylers the Cookes-broad: saile in rigt with it, but bring not that foresaid rock to or under that Iland, but keep it clear of without it: for els youshould surely saile upon the foresaid suncken rockes, which lye under water at the north side of the broadfound.

From the Iland Goedeu or Godsche-sand runneth of also a little riffe, to the southwards, or towards the southeast from it. When you come by that Iland runne about by that little riffe, in betwixt it and foresaid black rock, and ankor a litle within that riffe, under Goeden runne not farre within it, for to avoid a suncken rock, which lyeth somewhat further in, not farre from land, there stand to litle warders upon the shoare, a litle within the riffe, for knowledge off the roade.

Behinde, or to the northwards of Godeu lieth the litle Iland Geske: upon it stande tha a litle church on the south side, before it men may alsoankor in 8 or 10 fathom cleane ground. Geske

A litle within Goedeu, on the east side of Geske lieth another Iland, greather then Geske, called Walderoe, on both sides off the southeast point off that Iland men may ankor in good cleane ground, and lye land lockt for all windes. Walderoe.

From thwart of Geske and Walderoe lyeth a great multitude of rocks northwelt so farre into sea, that comming a seaboard alongst by Swynoe with a northeast course, you should farre within them.

He that comming from the northwards may saile by West alongst by these rocks to Godeu, & leave the aforesaid sunken rocks (lying on the northside of the Broadsound) on the starboardside of him, and runne in about by the point of Goedeu, as hath been beforesaid.

You may also run into the northwards of Goedeu, to wit, in betwixt Goedeu and Geske, and ankor within Geske, or under Walderoe, but it is not well to be done, but for to them which are there verie well acquainted.

There lye manie rocks, some above, and some under water, whereof men must take heede. In at the Broadsounde is the best and fureit.

For to runne from Walderoe to Roemsdale, goe on to the northwards, alongst by the great Ilands Luycko, it is in that farewaye, ten, twentie, fortie, fiftie, and eightie fathom deepe, but even past Luycko runneth a stone riffe thwart over the fareways, on against the point off the maine land, you must the reabours edge off from the Iland on the larboardside, and runne indifferent close alongst by that pointe of the maine land on the starboardside, and then you ranne over the deepest off that Stoneriffe, to wete, in three fathome or thereabouts, as soone as you shall be over it, it is againe verie deepe, of tenne, twentie, and presently an hundred and two hundred fathom. Runne on still by the land on the starboardside, and verie close alongst by it, and leave all the Ilands lye on the larboardside, and so you shall come unto the River of Roemsdale.

Towards the southeast from the forefaid Iland Goedeu or Godsche-sand, goeth a great deepe river into the land, to Sickule, Honighsale, and other lading places more.

To the northwards or northeastwards from Geske, lye (amongst a great maine other rocks and litle Ilands) five greate Ilands, the first called Luco, which is a high Iland, like as also the second, betwixt the two goeth in a channel about southeast called Luyckfound. Luco. Luyckfound.

Upon the third called Harmsoe lieth also a high hill, but is a both endes somewhat lowe. Harmsoe.

The fourth and smalleft called Lemsoe or the lowe Iland sheweth it selfe in two or three low hommocks. Lemsoe.

The fifth called Flemseu, or the Iland, is a great and lowe Iland, but seemeth litle to see at sea, becaufe there lye but one hommock upon it (not verie greate) and of fashion as the roofe or cabben of a Hoye, or the west end highest, within the east point of that Iland is a good roade in a bight, where men lye landlockt for all winds. Flemseu,

To the northwards or eastwards of Flemseu or the Roofe Iland, goeth in a channell called Nogwe Fioert, lying in east and by south, at which men may runne into Roemsdale. Roofe Iland.

Without these forefaid Iland of from Luco unto Boede lieth a great multitude off outrocks, great and small, called the Roemsdales flares. Roemsdales flares

Eastwardes from the Roofe Iland, or Flemseu, lieth (amongst other rocks and litle Ilands) the Iland Lever, which men may saile about on both sides, either wether they be bound outwards from Roemsdale to Beresound or Boe, or inwards from Boe or Beresound, and will runne through the foresaid Ilands. Lever. Beresound Boe.

Beresound is a haven within some rockes even to the southwarde to westwards of the point Boe, there it is good lying, but not good to come into without a Pilot, or some one that is there well acquainted.

Boede is an outpoint, with a neck or small point of land, fast to the maine land, alongst to the southwards of it men may run in and up, to the southwards to Beresound, or els goe to ankor in a bay on the northside behinde Boe, by some houses, where they may lye sheltred for a west winde.

From Boe to Stemmesheed, the coast lieth about northeast 2 leagues, betwixt them both about halfwayes, lye many small lowe black outrocks, as if they were sowne alongst the shoare, called the Stoppels, betwixt them and the maine land you can not saile through with great shippes without great danger. The Norwaye Barckes runne alongst with in them, and also ankor there within, under a Rock, which is somwhat greater then the rest, and lyeth about the midst of the Stoppels (or somewhat nearer the main land) called the Bartholm. Stoppels

All the Ilands betwixt Broad-sound or Flowach and Boe, belong under Roemsdale.

How these lands doe lye one from the other, and from other lands.

From Schuytenes the Rommels-head n.n.w. somewhat northerly	7 leagues
From dom nels-land to Cruysfoort northnorthwest	9 leagues
From Cruysfoort to Harle northnorthwest	13 leagues
From Schuytenes to the Outfeers west, and west and by north	4 leagues
From the Outfeers to Ielefioord, or the Wage of Bergen north and by west	26 leagues
From Schuytenes to the Elye south and by east southerly	106 leagues
From Schuytenes to the Fetlel, south and south and by east	112 leagues
From Schuytenes to Walcheren south	121 or 125 leagues
From Schuytenes to the Holms before Yarmouth south and by west, or somewhat more westerly	123 or 124 leagues
From Schuytenes to Flambrough head s.w. and by south	104 or 105 leagues
From Schuytenes to Tinmouth, the course is southwest	104 leagues
From Schuytenes to Borckenes west and by south southerly	72 leagues
From the Outfeers to the Elye south and by east	103 or 104 leagues
From thole Outfeers to the rocks Outweers north and by west	40 leagues
From Ielefioord or the Wage of Bergen to Hitland, west	48 leagues
From Ielefioord, or the Wage of Bergen, to the North end of Hirland west and west and by north	60 leagues
From Schuytenes to Hitland w.and by north and w.n.w.	66 leagues
From Schuytenes to the northend of Hitland westnorthwest somwhat northerly	71 or 72 leagues
From Ielefioord or the Wage of Bergen to the Rocks of Outweers, northnorthwest, and north and by west about	11 or 12 leagues
From the Outweers rocks to Old, northnorthwest and north and by west before text	4 and 5 leagues
From Olde to Orne north and by east, and northnortheast	4 leagues
From Olde to Ornes north, and north and by east	7 or 8 leagues
From Ornes to the south point of Stade northnortheast	3 leagues
From the south point of Stade to the north point, northnortheast	8 leagues
From the north point of Stade to Swyno or Swynoot northeast, and northeast and by north	4 leagues
From Swynoe to the outermoll of Flowach, or the broade sound, northeast and by east	4 leagues
From the north point of Stade to the Iland Hessen, or the Broade-sound northeast	8 leagues
From Hessen to Goedeu east, and east and by south	3 leagues
From Swynoe alongst without to Roemsdals-schares to Boede, the course is northeast and by north	3 leagues
From Stade to the northend of Hiland westsouthwest	66 leagues
From Stade to the east point of Iland, westnorthwest	200 leagues
From Stade to Greeneland northwest about	330 leagues

Of the tydes and courses of the streames.

Betwixt Bergen and Stade the water riseth and falleth, but it keepeth no certaine tyde a fourthsouthwest, and northwestheast maketh there moft full sea.

Betwixt Stade, Luyckefound and Boe a southsouthwest and northnorthwest moon maketh high water.

Heights.

The Outweers-rocks lye in	61 degrees
The Iland Kyne in	61 degr. and 30 minutes
Stade in	62 degrees
Broad-sounder or the Iland Goedeu, in	62 degrees and 30 minutes
Luyckfound in	62 degrees 40 minutes
The Stoppels and Boede in	63 degrees 28 minutes

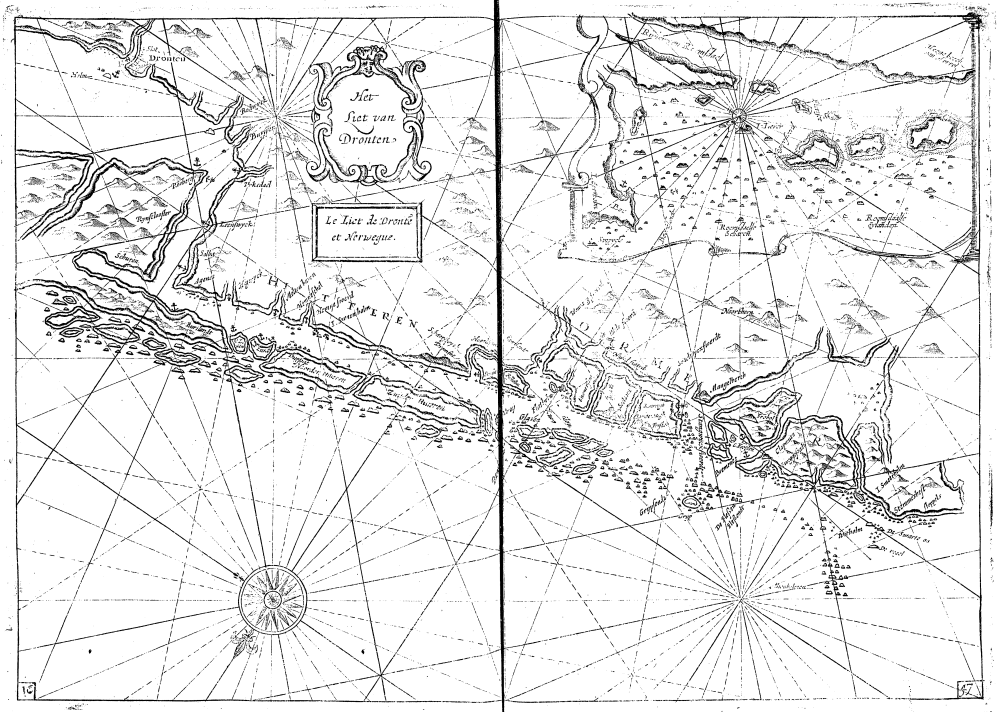
How these lands doe shew themselves at Sea.

Thus sheweth the Block, when you are to the southwards of Schuytenes before the Liet.

Thus sheweth the hill Sick, when you are to the northwards of Schuytenes.

The land about Northfoert and Southfoert, when it lyeth east and by south from you.

South


Het
Stet van
Drouten
Le Iuet de Drouté
et Norwegue.
Drouten
Nidaros
Tronhyck
Bergstaffue
Roomsdale
Roomsdale
Northberg
Bergerberg
Drontheim
Ancker
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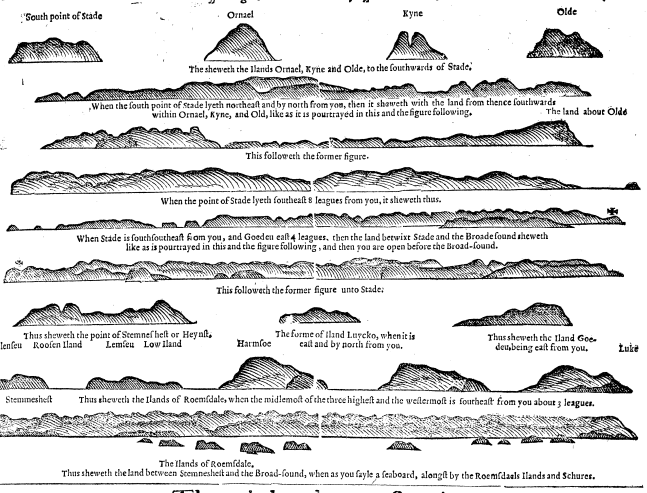


The eight demonstration,

Where in the Liet off Dronten is showed.

From Stade to Stemmesheft (or Stemmesnes) the course is alongst without the Ilands northeast & by north about 26 leagues, the land betwixt them both, is called the Governement of Roemsdael.

Stemmes-heit

Stemmesheft is a high point good to be knowne, it sheweth it self when as you get sight of it, comming from the southwardes or the westwards in two Hommocks thwart of it goeth in the Liet, with divers entries.

About a shot of a cast peece from the point lyeth a black round rock, altogether alone, not very great, called the black Oxe. Betwixt it and the point goeth in an entrie, called after the foresaid rock, also the black Oxe northeast and by east, it is not verie wide, and upon the shouldest 4 or 5 fathom deep at low water, the nearer to the Oxe the deeper, and the nearer to the main land the sholder water.

Black Ox.

A little within the Rock, the black Oxe lyeth an other great Rock or Iland, pale of colour, called Whiteholme, which you must leave in sayling also on the larboard side, you can not sayle through betwixt it and the black Oxe, because from the one to the other it is all full of rocks, some above and some under water.

Whitte-holme.

A little within or to the end of Whiteholm lyeth a suncken rock, which you must leave also on the larboard side.

Suncken-rock.

In calm weater or smooth water you can not well see it, but when it doth blowe any thing hard, you may wel perceive it by the breaking of the sea upon it. On the starboard side within Whiteholm, lyeth a great multitude of rocks, as if they were sowed along the shoare, amongst these rocks a little within or to the eastwards of the point of Stemmesheft lieth Smeerholme, an Iland, where men may ride under, and lye sheltred for all winds, exceept with east & northeast windes, which blowe there in open, with those windes you can not also come out there, neither with southsoutheast, south, southwest, and southsouthwests winds, you can not also come in there. You must saile in there from the northwards, behinde the Iland. In the going in (which is not above a cables length broad, eight or 10 fathom deepe) lyeth a little round rock, at high water 3 about 6 fathom above water, by which you may runne about on both sides.

Smeer-holm.

Northnorthwest about a halfe league from the black Oxe, lyeth also a greater and broader, but a lower rock, called the Vogel, which at high water lyeth a little above water, but with a spring the sea runneth alongst over it. Betwixt it and the black Oxe there semeth to lye in a broade and wide channell, but betwixt them it is ful of suncken rockes, and foule grounds under water: When it is smooth water, it is in no wise good to runne in there, but in fowle weather and with a growne sea, and and that you can not doe otherwise, you might runne in there by the breaking of the sea.

The Vogel

A great half league northnorthwest from the Voghel lye yet some rocks, lying to the eastwardes, called the Newholms, betwixt them and the foresaide Rock the Voghell goeth in a broade and large channell, verie cleane without any dangers, which (after the Rock is also called the Vogell, there men may see all that can doe hurt. The marks for to finde this channell) comming out of the sea are two hills, verie good to be knowne, which lye from thence east and east and by north within the land. The westermost is a hil somewhat low & round of fashion, allmost like a flat hat, called the Clapmurs. The eastermost is a high steepe sharpe Hill, above on the one side with a cutte; like as a steepe, called Manghelbergh. When these are one in the other, then they are about east and by north from you, and then you are also right open before this channell.

Neuholms

Clapmurs and Manghelbergh.

For to sayle in there, keepe these two foresaide hilles one in the other, and sayle in right with them east, and east and by north, or (when as you come within the Vogel) somewhat more easterly, so that you have the foresaid Hills out a head a little on the larboard side, untill that you come by the main land, and then eastnortheast alongst by the shoare, (if you be bounde to Dronten) unto the Iland Edon to Edoe.

About a league within the Vogel lye two rockes, the westermost is high and somewhat round, the other is low and also round, and lyeth to the eastwardes from the first, towards the land, you shall runne with the aforesaid course of east and east and by north off from the Vogel, about a shot of a cast-peece alongst to the southwardes of the two rockes. About half wayes betwixt them and the Voghell, (but nearest the two rocks) lye two suncken rocks, these you leave with the same course also on the larboard side, you may see the sea alwayes breake upon them, except in very smoath Water.

Two suncken rocks

You may also sail through betwixt these two foresaide Rocks and the Mewholmes, to wit, alongst to the northwards of the Rocks, untill you come into the Liet, leaving

these two rocks on the larboard side, and the Mewholms on the ſtarboard side.

Alongſt to the northwardes of the Mewholmes and thoſe two foreſaide rockes alſo a channell where men may ſayle through into the Liet, then you muſt leave thoſe two rockes to the ſouthwards on the ſtarboard ſide, and ſome other rocks to the northwards of them on the larboard ſide, and ſo come alſo into the Liet.

About three quarters of a league within theſe two foreſaid Rock, lyeth a great ſuncken rock, right in the middeſt of the farewaye, which breaketh all wayes, and at low water is uncovered, about which you may ſail on both ſides. From this ſuncken rock to Sweggefound, the courſe is eaſt, and eaſt and by north a league, but the Vogel or black Oxe and Sweggefound are diſtant about three leagues.

Sweggefound. Sweggefound is a little Haven behind three great rocks, with a little Iland of an Engliſh mile long on the eaſt ſide of it, when you ſayle alongſt by it, being but a little off from the ſhoare, you can not diſcerne this Iland from the maine land, but it ſeemeth to be all whole land, he that is not there verie well acquainted, can not perceive that to be an Iland, before that he com cloſe to it, for to runne in behind it. You may ſayle into Sweggefound either to the eaſtwards of that Iland, or to the weſtwards of it, according as the winde will ſerve. To the weſtwards of Sweggefound or the three foreſaid rocks, at the weſt end of the end of the foreſaide Iland lye a great multitude of rocks and foul grounds.

For to ſaile into the weſter channel, you muſt leave them all on the ſtarboard ſide, and runne in betwixt them and the three foreſaid rockes: when you come to the ende of theſe three Reecks, you muſt looſe up to the ſouthwards about by them towards the northeaſt or north, and anckor there in 7 or 8 fathom, there you ſhall lye landlockt for all winds, but with a ſtorm out of the weſt the growne ſea can come in rowlingh there through. You may alſo ſaile in further behind the rocks, untill you come in behinde the foreſaid Iland, in a little narrow Bay, there men doe lye in 2 fathom & a halfe, or three fathom and alſo ſheltred for all windes. In this Haven of Sweggefound the ſhips commonly doe lye there to tarrie for the winde. He that is bound to the weſtwards, may runne out to the ſouthwards of the three foreſaid rocks, and he that is bound to the eaſtwardes, may ſaile out to the northwardes, through betwixt the Land and the Iland, but that channel is verie narrow, and not above two fathom deep.

A halfe league to the eaſtward of Sweggefound lyeth the haTremſnes ven of Bremſnes, a little quarter of a league within it on the ſtarboard ſide ſtandeth a little church, with ſome houſes, which you ſhall eſpie behinde a point, when as you are come ſomewhat within, there dwelleth the Governour of Normer Leen. Me ſwere wonte to come to ankor there to paye cuſtome, but now the Kings Cuſtomer dwelleth over againſt it in little Toſſen, ſo that now at this preſent, men may eyther goe there, or to little Toſſen for to paye there cuſtome, according as occaſion doth ſerve.

For to anckor before Bremſnes, you muſt looke out for two beackons, which ſtand by the church upon the water ſide, thwarte of the innermoſt is the beſt Roade, and alſo the beſt grounde, let your anckor fall there, in twentie, fifteen, eight or tenne fathome that is neare by the ſhore, for there it is verie ſteep riſing ground, and make you faſt with a hawſer to the beackons, there you ſhall lye landlockt for all winds, you may not alſo anckor no where thereabouts, then in the foreſaid place, by reaſon of the great depth, and verie ſteeepe grounds.

Little Foſſen or Foſſound is a narrowe haven, lying to the Little Foſ- northwardes, over againſt Bremſnes, betwixt two lands. In ſound. theſe two places lie the ſhips commonly to tarrie for the wind, they that are bound to the eaſtwards before Bremſnes, and they that are bound to the weſtwardes in Little Foſſen. Men may alſo ſaile from Foſſen to the eaſtwards, through betwixt the foreſaide land, and come into Stangwixfioerd againe in roome into the Liet of Dronten, but is a verie narrow channel, and not wel to be done for them which are not there verie wel acquainted.

Weſtnorthweſt, from the haven of Bremſnes goeth a chanFleſſond & rell through the rockes called Fleſſound, after three round Rocks, called three Fleſſen which lye in a rowe without the eaſt ſide of this channell, & thereby is very good to be knowne, Three A little within the three Fleſſes, lieth a great black flat rock, Fleſſen. when you are by or in Havens-mouth of Bremſnes is lyeth weſtnorthweſt, or ſomewhat more northerly from you. For to runne out from thence at that channell, ſaill right with the aforeſaid black rock, and runne to the ſouthwards of it cloſe alongſt by it leaving it and the Fleſſes on the ſtarboard ſide, (to the northwards of this flat rock and the Fleſſe it is all full of rocks, ſome above and ſom under water) you ſhall then leave on the larboard ſide of you, two other round rocks, which you ſhall ſee lye about a ſhot of a caſt peece eaſtnortheaſt, or northeaſt, and by eaſt one from the other. When you are come without the Fleſſes, you ſhall be without all the rocks, but ſome what to the weſtwards of them lieth a great row of rocks, lying weſtnorthweſt a good wayes into ſea, you may runne weſtnorthweſt alongſt by them unto the end: when you are come without the Fleſſes you may ſet your courſe ſomwhat more northerly, for to get ſea room betimes. In this foreſaid channell there is no danger, that can hurth you, but you may ſee it. In the offing you may know this foreſaid channell, by the foreſaid three Fleſſes.

The markes for to finde Fleſſound, comming in out of the Freeckol, Freeckhol, lying upon ſea, are two high Hils, the one called Freckhol, lying upon an Iland, towardes the ſoutheaſt, not farre from Bremſnes, the other called Northorne, lying farre within the land Freeckhol is a hill with two hommocks where of the ſouthermoſt is the ſmalleſt and loweſt. Northorne is a hill much higher, whit a Northorn hart toppe, and lye alwayes white, covered with ſnowe, When this hill and the foreſaide ſouthermoſt Hommock of Freeckhol ſtand one in the other, then they are ſoutheaſt and by ſouth from you) and that you ſaile in right with then, you ſhall without fail fall right open before Fleſſond. It is a channel of a ſhort inlet, and very commodicus, as alſo Gryp ſound for them which comming from Dronten, Edou, or any other place in the Lieth, Stangwix and before night can not ſaile to the channells of the black Oxe fioird. or Vogel, for to runne through them into ſea.

About a quarter of a league to the eaſtwardes of Bremſnes lyeth Stangwyxfioird, a large broadfound, at the eaſt point Hammer- lyeth a great many rocks, within lyeth a Haven, called Hamer- found. found, you may not com in there but with a Pilot except you be there extraordinari well acquainted.

A quarter of a league within that foreſaid point, on the north ſide of Stangwycxfioerde lye two lade places, Iorian wach and Iorian Lynwach, men runne in there to the northwardes, behinde ſome wag Lynwag. rocks, but it is alſo Pilots water.

Towards the ſoutheaſt from Iorianwagh, men may ſale farre within the land, into many divers founds, Stangwicxfiord, Schaelwiſſord, Northfioird, Walsfiord, Wenningfioird, and other more. Upon the lande of Iorianwagh lyeth the mountaine off Toefter, in two hilles, to the eaſtwardes of it upon the next land lyeth the mountaine of Stadebuye, alſo in two hills, as Toefter. Theſe hills of Toefter and Stadebuy, when you come from the weſtwardes alongſt the Liet, lye right behinde one the other and ſeeme then to be no more then one hill, but being thwart of them in the Liet, or at ſea, each ſheweth in two, which is together foure very high hills, and are commonly called toge ther without difference Toefter Poetter. Toefter Poetter

Betwixt Toefter and Statebuye runneth through a narrow Soulfound Sound, into the Northfioerd, called Soolfound. To the eaſt of Statebuye runneth alſo another found through into the Northfioride, called Emmerſound, within which on the north ſide, cloſe by the northfioird is a lade place, where men doe lade good deales.

A quarter of a league in the Liet, to the eaſtwardes off Em- Emmer- merſound, runneth in another found, at the entrie broade and ſound. wide, within it divideth it ſelve into two partes. Sayling in there you muſt leave Iſfholme and the Yellowe Iland on the larboard ſide, and a rockie Iland, called the flat Iland, with mamie Rocks on the ſtarboard ſide. The Yellow Iland is not The Telloe well to be diſcerned from the main land, for thoſe which are Iland. not there well acquainted, the end of the Northfioird runneth there about behind it and maketh it an Iland. The Norwazebarkes runne much thereabout behinde it. To the ſouthwards of the flat Iland lyeth a Rock or little Iland, called Flathom, Flatholm. berwixt them both is good anckoring in 10 or 12 fathom, landlockt for all winds.

Through this founde men doe runne into Eurſound, a ladepla- Eurſound. ce lying in the Nortfioird, there ſtandeth a little church on the weſt ſide of the ſtarte Iland Betwixt the little Iland is alſo a good haven, where men may lye in three, foure, and five fathome, it is not broade but cleane. To the eaſtwards of this Yellow Iland lyeth the high land of Dromſnes. From thence Dromſnes eaſtwards, further up into the Liet, towardes Dronten or Agenes, it is moſt all whole land, and not ſo broken, as to the weſtwards of it.

Thwarte of the rocks of Hammerſound (lying on the eaſt ſide of Stangwyxfioird) lyeth a faire channell called Grypſound, one of the beſt channells for to come in out of the ſea in the Liet it is about a quarter of a league broade, and goeth cloſe to the eaſtwardes of the Iland Grype.

Grype

Grype. Grype it a little rounde Iland lying from the Voghell northeaſt and by eaſt diſtant aboute ſeven leagues, upon it dwell manie Fiſhermen, whtch goe from thence to ſea, to fiſh upon divers bancks, of fortie, fiftie, ſeventie, eightie, and hundred farhome, foure, five, ſixe, ſeven, eight and ſome tenne leagues without the land, which they knowne to finde by markes on the ſhoare. On the north ſide of Grype there lye but two or three rocks cloſe to the ſhoare, ſome ſaye that there about is anckor grounde in twelve fathom. On the ſouth or weſt ſide, it is full of Rockr, but they lye moſt above water. Aboute halfe wayes berwixt Grype and three Fleſſes, ſome what without al the other Rocks, lyeth a ſuncken rock a little under water he that runneth alongſt without theſe rocks, muſt be mind full thereof.

For to goe into Grypefound comming in out of the Sea, you Gryp- muſt bring the high Mountain of Toefter Poefter eaſtſoutheaſt found. from you, and ſayle in right with it, and ſo you ſhall not ſayle to runne in ſight of the Iland Gryp, which is good to knowne from the other rocks, by the greate manie Fiſhermenes houſes, which ſtand upon it, and upon no other Iland not Rocks thereabouts, leave that Iland on the ſtarboard ſide, and goe in firſt eaſtſoutheaſt right with Toefter, being paſt the Iland Gryp, bringe Toefter two points on your larboard bowe, and goe ſo in ſoutheaſt, and you ſhall come in to the Lieth betwixt Hammerſound and Toelter. From thence to the little Iland Edou are about foure leagues. About three leagues to the weſtwardes of it, or a league to the eaſtwards of Gryp found in the Liet, lieth alſo a ſuncken rock, almoſt even with the water, and allmoſt amidſt the farewaye, neareſt the north ſide, you may alwayes ſee the ſea breake upon it, leave it on the larboard ſide, and runne to the ſouthwards of it, there it is broadeſt, you may for neede run alſo to the northwards of it through betwixt it and the other rocks, but it is there narrow.

Edou. Edou or Edoe is a ſomewhat low plain Iland, a league long, and verie narrow, which is the firſt land out the larboard ſide, upon the Liet, that men have ſhelter off from the ſea, to the weſtwards of it, there is nothing but broken land, Rocks and little Ilands, where the growne ſea cometh rouling in through. Not farre from the weſt end, upon the ſouth ſide of Edou, ſtandeth a little white Church, thwart of it, or a little to the eaſtwards of it, men may anckor in eight, nine, tenne fathome. The ſhoare is ſteep ryſing ground: If men doe come neare it in foure fathome, they ſhall be preſently falt, but the grounde is ſoft. When as men come from the weſtwards, and will anckor there, they muſt (comming neare the weſt end of the Iland) continually feele with the leade for the anckor ground, and ſo ſoone as they feele it, let fall their anckor, thwarte of a the foreſaide little white Church, or a little to the eaſtwardes of it ſo that the little Church come to ſtand over the houſes. When as let fal their anckor in tenne fathome, and wending up towards the land, verie out the cablethen the ſhippe ſhall come to lye there in five fathome, the Liet is thereabouts aboute a halfe league broade.

Kurou Upon the eaſt end of Edou is alſo a little haven called Kurow, and it is ſo little that there can lye no more then two or three ſhippes, there lyeth a little black rock not farre from the ſhoare, men doe runne in betwixt that little rock and the Iland, and anckor betwixt them both there men lye landlockt for all winds, but the ground there is not cleane.

Glaſeu: At the eaſt end of Ddou lyeth another Iland ſomewhat long, called Glaſen. To the eaſtwards of it runneth a great broade Rams- Sound into ſea, called Ramffioird, but it is known of few. With ford. northeriy winds there commeth through a great growne ſea into the Liet.

Highland To the eaſtwards fran Ramſſiorde lieth the land of Hitte- of Hitteren ren, two greate long Ilands, Norther Hitteren, and Souther Hitteren, together about ſeven leagues long, ſo that he that ſayleth up the Liet thwarte of them, can not perceive otherwyſe, but that he ſayleth in betwixt two maine lands. At the ſouth end or weſt end of Hitteren, which is on the eaſt ſide off Weroy Ramsfioird two litle Ilands, called Weroy, there you may ſail in betwixt them, and anckor in good white land ground, you may alſo ſayle through betwixt the little Ilands, alongſt into the Liet, and then you leave a ſuncken rock lying on the ſtarboard ſide, by the ſouthermoſt little Iland.

From the Iland Edou to the Highland, or the pointe off Dromſnes Dromſnes it is northeaſt and by eaſt and eaſt northeaſt diſtant about three leagues. To the weſtwards of that point, to wete, betwixt that point and the land to the weſtwardes of it called Schaers- Schipnes, lyeth a haven called Schaerſwyke. In the mouth off wyke. this haven, about the middeſt of the channell, but ſomewhat nearer Schipnes then Dromſnes, lyeth a ſuncken rock, which falleth drie at low water, you may runne in aboute it on both ſides. A litle within the point, on the ſouth ſide ſtandeth a Countriemans houſe, before which you may anckor in five, ſixe or ſeven fathom, cleane riſing ground, which you may come nea. eby your leade. This haven lieth about a league more to the eaſtwardes, then Ramſſioird, on the ſouth ſide of the Liet, fitte for to come to anckor in, for thoſe which can ſayl no further by day. To the weſtwards of this foreſaid haven Schaerſwyke alongſt the land of Schipnes, lye maine Rocks by the ſhoare, ſome above and ſome under water, therefore you muſt ſomewhat ſhunne the ſouthſhoare thereabouts, but the north ſhoare alongſt by Hitteren is verie cleane. The Liet is thereabouts a great halfe league broade.

Lexen. Aboute five leagues to the eaſtwards of Schaerſwycke, on the north ſide of the Liet, lye the two Ilands of Lexen, to wete, Norther and ſouther Lexen, which are together about a halfe league long. There the Liet lyeth betwixt both eaſtnortheaſt, and northeaſt and by eaſt.

In ſouther Lexen is a baye, before which lieth a round rock, making in there within a faire haven, called the haven of Lexen the beſt haven of all the Liet. Thon Geurſton Boogart off Amſterdam, hath (at this owne charges, for the commoditie off ſhips that come there) cauſed to be made a great Iron righ: men doe anckor either to the eaſtwardes or to the weſtwards off the foreſaid rock, where they will in five, ſeven or eight fathome, and bring a hawſer on the foreſaid Ring, the further men doe run into the Bight, betwixt the Rocke and the land, the ſhoulder, it is all cleane and clear ground.

At the norther end of norther Lexen is alſo a place, where is Road un- good anckor ground fit for to make road in. der north Lexen

Moltow. Over againſt the haven of Lexen lyeth an other haven called Moltow, where the ſhips doe oftentimes anckor in the Harveſt or beginning of the winter, for to fet ſayle with an eaſtwinde, becauſe they can hardly get to ſayle from Lexen with eaſterly winds.

Swanholm A league to the ſouthwards or to the weſtwards of theſe havens, of Lexen and Moltow, on the ſouthſhoare, lyeth a little Iland, whereupon ſtandeth a Warder, called Swanholm which men may ſayle round about; under that little Iland it is good anckoring (as well for them which are bound to the eaſtwards as to the weſtwards) in 4 or 5 fathom good cleane ſandground.

The ſouth ſide of the Liet off from Schaerſwycke alongſt to Hegwyke, (which is a league and a halfe, and two leagues by weſt the point of Agenes) is moſt cleane with little fowle grounds: but from Hegwycke alongſt to Agenes the coaſt is foule and rocky. The north ſide alongſt by Hitteren, as alſo indifferent cleane; except at the north end lye ſome rocks called the Terlingen, which lye ſomewhat off to the ſouthwards from the ſhoare into the Liet. A little to the eaſtwards of Hemneſſioird, over againſt Hemneſchell (an Orchard upon a high land (there the Liet is at the narroweſt, and no more then a halfe quarter of a league broad.

Hemne- Hemneſſioird lyeth over againſt the north end of Hitteren, fioird it is a bay where many Sawes doe ſtand, and abundance of good Deales are cut and laden.

Deep- To the northwards or eaſtwardes of the Terlingen, at the found north end of Hitteren, in betwixt Hitteren and Lexen lyeth a haven called Deepfound, the Norway Barcks (comming from the ſouthwards) runne in there alongſt behind Lexen to the northwards.

Ageues. From Lexen to the point of Agenes on the ſouth ſide, or to Euriland on the north ſide, the Liet lyeth alongſt eaſtnortheaſt, and northeaſt and by eaſt three leagues. Agenes is the norther- moſt point of the Liet, you muſt goe about by it when you are bound to Dronten.

Poſſen Garten. Betwixt Norther Lexen and Furiland lye two Ilands, the ſouthermoſt is called Poſſen, the northermoſt Garten, to the ſouthward of Poſſen you may ſail through alongſt into the ſea, but not without a Pilot.

For to ſayle from Lexen to Agenes, runne alongſt by the northſhore, which is the cleaneſt, the ſouth ſhore is fowle. A cables length or cables length and a halfe to the weſtwards off the point Agenes, lyeth a ſuncken rocke not farre from the ſhoathoare. For to avoid it more other danger, keepe alongſt by the north ſhore (but take heed that you run not in to no bights or bayes) ſo long untill that you can ſee the houſes upon Agenes, then ſayl towards it, and then you ſhall not ſayle within any dangers on the ſouth ſhoare. On the point of Agenes is alſo a great Iron Ring for to more the ſhippes to there by it is deeper and ſteepe off-going fowle ground. For to anckor, there you muſt bee very cloſe by the ſhore before you ſhall finde ground, and then you muſt make a cable faſt on the foreſaid Ring, cloſe to the ſhore it is about five of ſixe fathom deepe foule ground.

On the north ſide of the Liet over againſt the point of Agenes,

Euriland. nes, lyeth Euriland, a flat fayre greene land, upon it ſtandeth a little white Church about in Engliſh mile off from the ſhoare: vvithin the land, almoſt like the litle Church of Edou, thwart off it is a good road cleane flat riſing ſand, and claye ground, men doe commonly ankor there thvvart of the firſt beakon in 7, 8 or 9 fathom good clay ground, 16, 17, or 18 fathom men lye farre from the ſhore.

Salva With contrary vvindes, or that men cannot come about Agenes, or taken vvith the night, they doe anckor moſt commonly there.

By Agenes there runneth out alvvayes a great ſtrong current to the Weſtvvardes, and by reaſon the lands from thence to the ſouthwardes on both ſides are very high, and the winde (being ſoutherly) falleth there betwixt them both, alvvayes ſtrong to the northwards, men can not (in ſayling up get any thing there with turning to windewards, but in ſayling off they may het much by the current with turning to windewards.

A little about the point of Agenes on the ſtarboard ſide, is a great Bay called Salva, wherein is good anckor ground, and good lying, but with northerly winds it is verie hard to com out there for theſe that are bound out, or to the weſtwards.

From Agenes to the point of Roobergh, the Liet lieth ſouth-ſoutheaſt aboute three leagues. About halfe wayes or or ſomewhat more on the weſt ſide lies another bay called Lenſwycke where men may haven roade.

Roobergh Roade. Roobergh is a ſomewhat flat point, to the eaſtwards or to the northwards about this point is good road in 6 or 7 fathom. A good wayes from the ſhoare to the weſtwards of the point, the Norway Backs doe oftentimes ankor, but the ground there is not cleane, and therefore it is no good road for great ſhips.

Burſen. Bodwyke. Over againſt Roobergh lye divers Bayes and havens, as Urkedal, Burſen, Bodwyke and other more, where many Deales are cut and laden.

Holm off Dronten. From Roobergh to the little Iland or Holm of Dronten, the courſe is eaſt three leagues, when you a little paſt Roobergen, you ſhall ſoone eſpy it againſt the high land to the eaſtwards off Dronten, betwixt them both is wide and broad. From the point off Roobergh the land lyeth up to the northwards ſo farre that at ſome places men cau hardly ſee over the water.

How theſe Lands doe ſhew themſelves at Sea.

Theſe two figures belong at the Croſſes one to the other.

The land from Gryp weſtwards or ſouthwards towards Stemmesheſt like theſe two figures here above, when as you ſayle alongſt by it ſeven leagues without the land.

When you come by the Holm, you may ſayle about within it on both ſides, you muſt bring the Holm to the northvvards off you, and anckor to the ſouthwards of it in 6, 7, or 8, fathom, according as you lye cloſe to it or farre from, it there is cleane clay ground. The Holm and the Elf, or river of Dronten, lye north and ſouth about a ſhot off a caſt peece aſunder, betwixt them both is every where good anckorground, and depth off 20 and 21 fathom.

About a bow-ſhot northeaſt from the Holm lye two ſuncken rockes, which at low vvater are uncovered. When as they are even covered with the flood, then you may ſayle in over the ſhouldeſt of the Barre into the Elf with a ſhips that draweth 11 foot.

To ſaile into the Elf off Dronten, it is Pylots water, there ſtand commonly two or three maſts for beakons, but there is no certainty off them that men may truſt unto, for they are oftentimes ſhifted: ſometimes they ſtand on the eaſt ſide, ſometimes on the Weſtſide, and alſo ſometimes on both ſides. When you come a ſhips length or two within the beakons you ſhal come to a chindely point on the ſtarboard ſide, by which you muſt luff up to the Kay: upon the Barre it falleth with a ſpring tyde almoſt dry, but within it is deeper.

Of the ſtreames on theſe coaſts.

From Stade to Dronten a ſouth and by eaſt and north and by weſt moon maketh high vvater, with a ſpring it falleth a fathom and a halfe up and downe, with and ordinary tyde ſcarce a fathom.

The tydes run not there alongſt the land, but the flood falleth thvvart on againſt the land, and the ebb to the contrary thvvart from the ſhore to ſeavvards.

Courſes and Diſtances.

From Stemmesheſt to Gryp northeaſt and by eaſt	7 leagues
From Gryp to the Ilands of Momendall northeaſt	18 leagues
From Gryp to Holyland northeaſt and by eaſt	27 leagues
From Gryp to Kull north and north and by eaſt	64 leagues
From Gryp to the north end of Hirland ſouthweſt and by weſt	125 leagues
From Gryp to the ſouth end of Fero weſtſouthweſt	167 leagues
From Gryp to the eaſt point of Iſland weſt, and weſt and by north	333 leagues

Of the heights of the lands.

The Ilands Whiteholme and Smeerholme lye in	63 degrees 44 minutes
The Iland Gryp in	64 degrees
The town Dronten	64 degrees, 34 minutes

The ninth demonſtration,

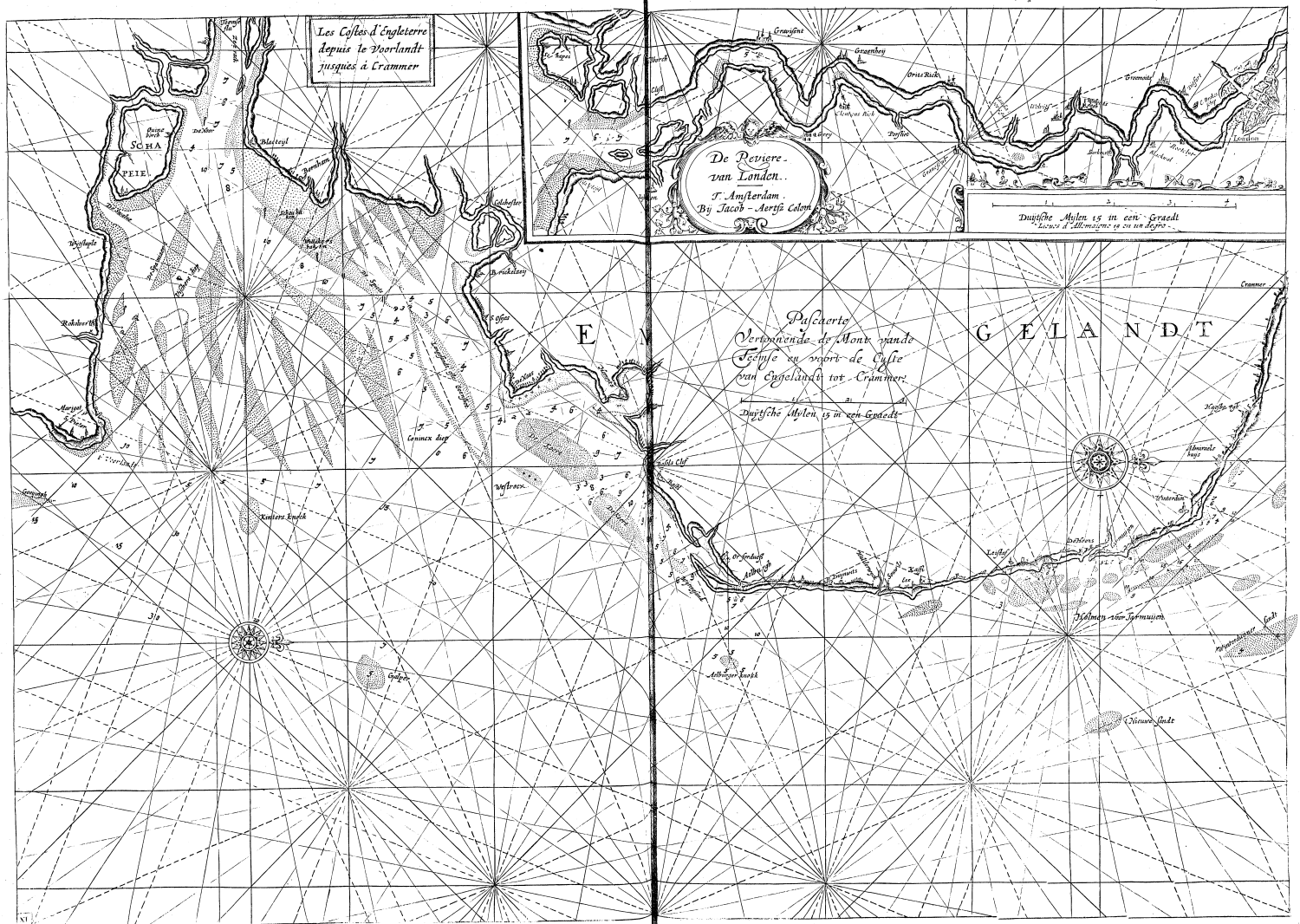
In which the eaſt ſide off England and Schotland, is theweth, from the River off Londen to the Newcaſtel.

BY two wayes men may ſayle into the river of Londen, from the ſouthwards alongſt by the north Forland, and from the northwards alongſt by the Naes. If you will ſaile in there from the ſouthwards, then you muſt firſt ſhun the North For land, it is there ſhould a good wayes from the ſhore, bring the North Forland alſo not more ſoutherly from you then ſouthweſt, that you do not run on againſt the north grounds, which lye farre to ſeawards. Comming by the land, run alongſt by it, but come not to neere it, that you leeſe ſight of the ſpyre of the ſteeple of Margat behind the land, for then you ſhould come to neere it; but if you keepe ſo far from the ſhore, that you can ſee the foreſaid ſteeple above the high land, or keep it even in your ſight, then you can not take hurt of the ſouthgrounds. Comming thwart of Margat, then you are paſt foreſaid ſhowlds or ſouth grounds. Run then boldly tewards the ſhore, and within two cables lengths alongſt by it, for to avoid the north grounds, which lye farre to the ſouthwards the land. Sayle on ſo weſt all alongſt by the ſhore, untill that the Roculvers (which are two ſteeples upon one Church) come one in the other, and then you ſhall run in ſight of the firſt buye upon the Laſts, which lieth upon the foreſaid markes of the Roculvers Roculvers, being by it you can alſo ſee the other buy which lieth like as the firſt alſo on the north ſide, & over againſt it on the ſouth ſide ſtandeth a beakon, there you muſt ſaile through betwixt them both leaving the buye on the ſtarboard ſide, and the beakon over againſt it on the larboard ſide. From thence you may with little ſhippes, or ſhippes of little draught: but not with ſhips of great draught, at high water run over the Swallow on weſtnorthweſt towards Scheppy, for it is there ſhould water, with ſhips of great draught you muſt run through the Fiſhers deep towards Black-tayle. You may alſo runne from Margat with ſmall ſhippes alongſt by the ſhoare upon the lead at high water even unto Sheppy, but in ſayling alongſt there you muſt eaſt your tydes well, for the flood falleth very ſtrong into the Swallow, and the ebbe to the coutrary very ſtrong out.

When you come by Sheppy, runne withiu two cables lengths Scheppy. alongſt by it, for to avoid the taile of the Spanjard, untill that The Spagyou be paſt Quinsbrough, edge then off from the ſouth ſhoare mard. for te avoid the Noere, which is a ſande that ſhooteth off from The nore, the ſouth point of the River a good wayes to the eaſtwards, upon the outermoſt end where of ſtandeth allwayes a beakon, whereby you may know it. Run alongſt to the northwards of it, leaving on the larboard ſide, & alongſt in the middle of the channell into the ſea-reach for to avoid the grounds which lye off from the north ſhore, goe in ſo alongſt towards Graveſand.

To ſayle with ſhippes of great draughts alongſt by the north Forland up into the Thames, you muſt (when you are paſt the buyes upon the Laſts) ſayle through the Fiſhers deep, towards Black-tayle, which lyeth from the ſecond buye upon the Laſts, unto the firſt buye in the Fiſhers deep, northweſt and northweſt Fiſhers and by weſt, which lyeth upon the north ſide of the ſand, which deep. men doe call the Spanjard, thoſe two buyes lye a great wayes one from the other.

Saying from the buye upon the Laſts it is a great wayes all ſhould


Les Costes d'Engleterre depuis le Voorlandt jusques à Crammer
SCHA
PEIE
Blakeyel
Yarmouth
Colchester
Westgate
Margat
S. Peters
Goodwin
Kantens Knoek
Caminex diep
Westraven
Vlieter Hoek
Vlie
Texel
Vlieter Gat
Vlieter Hoek
Vlie Gat
Schelling
Ameland
Schiermonnikoog
Rottumer Gat
Rottumer Plaet
Rottumer Hoek
Rottumer Diep

shoulde water, so that you must runne over there with high water, but comming neare the buye upon the Spanjard, it is by litle and litle deeper water. He that will faile over heere, must reckon his tydes well, the flood falleth there alongst towards the southwest almoste thwart over the deepe and the ebbe to the contrary.

The second buye in the FithersDeepe you must leave on the starboard side, and the buye upon the Spanjaerd on the larboard side: being past that, you come against the Blacke tayle, to the southwards of the Shoebeakon into the right deepe. The eastpoint of Sheppy shall then lye about south from you. From the Shoe-beakon the course is southwest to the point of Blacktaile, there runneth of a hooke which men might (at unawares) sail within (comming from the northwards) in five or six fathom, but if you keep from the shoare in seven fathom, you can not faile within it. From Black-taile to the beakon upon the Noere, the course is westsouthwest, leave it on the larboard side, as before is said, and runne in alongst the river, in the middest of the channell betwixt both lands into Gravesond.

For to faile into the river of London comming from the northwards, you must come neere the coast to the northwards of Orfordnes which is to the northwards of all the sands, there lye Albrough, Dunwich Walderswike, Sowle and Covehit, all betwixt Orfordnes and Leystaf. Covehit is sharp steeple like at also Leystaffe, but Sowle and Walderswyke, Albrough and Orfordne sare all flat steeples Sowle and Dunwich lye both upon the high land, betwixt them both is a valley, therein you may see Walderswike when you are thwart of it. Dunwich is the best to be knowne of all these foresaid places: it hath two flat steeples, and on both sides some trees. To the southwards of it lieth Albrough which is also very good to bekowne, it hath one high flat steeple with three mills, the two stand to the northwards, and the third to the southwards of Albrough when you are thwart of it, but sayling to the southwards, they come at last all three to the southwards of it. The land without Albrough, and the southwards of it is very low flat and chindely land.

Betwixt Albrough and Dunwich about half wayes betwixt them lieth a Wood which is a both end high, & in the middeft low with a faddle; this you shall commonly see first, when you fall with the land thereabouts, and is the best to beknowne for to know the coast by; the land without it, and to the southwards is very low flat chindely land. About two leagues to the southwards of Albrough lieth Orfordnes, betwixt them both stand also two woods of trees, which shew them selves a farre off like castles or towers. Orfordnes is a flat steeple with a thik or broad castle, which hath also a thick flat steeple, almoste of fashion like the steeple of Rarop, open aboven with holes in it like Bellholes.

Before Dunwich you may anckor, there is good lying in eight or nine fathom, somewhat soft ground. Before aelbrough is the best road of all the coast thereabouts in 6 and 7 fathom.

East from Aelbrough about two leagues lieth Aelbrough Knock, this is a sand which at low water is not deeper then seven or eight foote: you may sound round about it in five fathem, but is not good to come nearer it. which sea winds you may discerne it plainly by the breaking of the sea upon it; but with landerly or westerly windes, and faire weather, the sea breaketh not upon it, hee that runneth thereby to the northwards with an eb, shall see it commonly ripple very much upon it, like as upon moste the English bancks, and not indeed the upon banckes, but against them, for upon the shoulderst or middeft of the banckes is alwayes the smoothst water, like as you finde every where.

When as Aelbrough is west from you, and the two steeples of Orfordnes are one in the other, there you shall finde Aelbrough knock. These are sure marks of that sand.

The Whiting, or Whiting sand, is somewhat a long small sand lying before Orfordnes, and the chindely land to the southwards of Aelbrough, and lyeth alongst the reach, but the south end lieth further from land then the north end, there is at low water not above six or seven foot water upon it. Comming from the northwards, men saile commonly to the westwards of it, that is through betwixt the land and Whitingsand, towards the Naze. Men may also saile alongst to the eastwards of it, through betwixt Whiting-sand and the eastermost point of the Court, or Court-sand, which some doe call the Rib.

The north end off the Whiting lieth alongst close to the shore, and lieth from the steeples of Orfordnes southeast and by south, it is so exceeding steepe and needle to, that you shall have the one cast nine, the next cast five fathom, and then you are no more but a ships length from it, before you can heave the lead again you should be upon it. When as you sit with the foreship against it, it is at the stearne five or six fathom deep.

Alongst the Inner-side, it is also everie where so steepe, that you can not founde it, but on the outher side you may runne alongst by it in five fathom upon the lead, untill you come within the sands.

When as you come from the northwardes and will saile through whitin the Whiting, you must run close alongst by the shoare, and southwest about by the point of the chindle to the southwardes of Aelbrough, untill you come within the north pointe of the Whitinge, when the steeples of Orfordnes come to be northwest and by north from you, then you are right thwarte of the north point of the Whiting, being within it goe againe more southerly; to wete, southwest and by south towardes Balsy cliffe.

If you should fall to the southwards of Whiting, or els comming from the southwards will saile in there to the northwardes then bring the steeples of Orfordnes westnorthwest or northwest and by west, but for all not more northerly then northwest from you, and saile so right in untill you come by the Chindle stand, then run in alongst by it, as is before saide, and then you shall run far enough alongst to the northwardes of the Whiting.

If you will saile in to the eastwardes of the southwardes off the Whiting, then bring the steeples of Orfordnes northnorthwest, or northwest and by north, or northwest from you, and sayle in so right with them; untill that the wood of trees, that standeth upon the nexte pointe to the southwardes of Balsy cliffe, come to Balsy cliffe, which shall then stand aboute westsouthwest from you, keepe that a foresaid woode to the southside of the cliffe, and saile in bouldly right with it. and then you shall runne right in the fareway, in betwixt the Whiting, and the tayle of Courtesandr, but if you bring the foresaide trees more then a handspikes length without the cliffe, you shall not faile to runne on against the pointe of the Coure. That aforesaid wood of trees is verie good to be knowne, because there abouts stand no other trees.

Or bring the steeple of Balsy westsouthwest from you, and saile in right with it, untill you come by Whiting-sand, in five or sixe fathom, and leade it in so by it upon the leade, untill that you come by Balsy, or that you get deeper water.

When you come neare Balsy, whether you be come in from the northwardes, or the southwardes, of Whitingsand, you must keepe somewhat of from the shoare because off a litle riffe or small tayle, that shooteth off from the shore, thwarte of Balsy cliffe, which you must avoide somewhat, with shippes of greate draughts, there remaineth at lowe water upon it no more then two fathome, you may commonly perceive it well by the rippeling of the tyde.

You may also saile into the southwardes, of the Ribbe (that is, the rayle of the Courte or Courte-sand) thus: Bring the steeple of Balsy northnorthwest or a litle more northerly from you, and saile in so right with it, and so you shall runne in to the northwardes, to through the Courte, at a channell of eight fathome depth, the east side of this channell is steepe, come no nearer it then eight fathom, but by the west side you may run in aboute by the Court, upon the lead, untill you come within the sands.

Balsy hath a high flatte steeple, and lyeth some what within the land behind the clif, when as you come from the northwards, you may see Balsy to the northwards or the westwardes, of the cliffe, but you saile it altogether behinde the cliffe, so that at last it commeth out againe to the southwardes of it.

If you will saile to Harwich being past Balsy, then bring Balsy to that steep-point to the southwardes of Balsy where trees stande upon, keep these markes so standing, and run so alongst by the shoare, untill that you be over the point of the Chindle, the markes thereof are two high trees within the land, when they are aboute northnorthwest from you, then they come one in the other with the steeple of Harwich, and then you are right over the pointe of the Chindle, and then you shall get deeper water, to wete, foure and five fathome, or somewhat more against the highest water. Runne in then aboute by the pointe, the channell lieth in right north, but in the midst of the havens mouth lie a suncken rockie and stonie ground, which you must avoide, you may saile in aboute it on both sides, by the one shoare or the other, but alongst by the east shoare it is best, being within it, you can not saile amisse, to take hurte, if you do not saile bluntly against the shoare: there you may anckor al over, where you please, before the towne, in five sixe and seven fathome. You may well also goe further into the bight, there it is clean everie where. The farewaie betwixt

twixt Ordfornes or Whiting sand and the Naes lieth moſt S. W. and by S. and is 6, 7, and 8 fathome deepe, in turning to Windewards, you may run to the ſhoare in 5 and 4 fathome, but cloſe to the ſands it is deeper, to wete, 8, 9, and 10 fathome, the nearer the ſands the deeper Water.

The Naze. But for to ſaile from Bolſy to the Naze, you muſt marcke the ſteeple of Balſi, when it commeth within a caſtoile barres length neere to the S. end of the cliffe, then keep them ſo ſtanding, ſo long untill that the houſe upon the Naze come over the two fields, which lye on againſt the High land, or come over a blak head upon the ſea ſide, ſaile then right in with them, until that the ſteeple of Harwich come to be N. N. W. from you in the litle valleye of a redde cliffe, leave then the firſt markes, keepe the ſteeple of Harwich in that litle valleye, and goe on ſouthſoutheaſt, untill that the thirde pointe off the Naze come without the 2 other points, ſo you ſhal run throug betwixt the Naze and the courſe, there remaineth at lowe water no more then eight, tenne, and ſo ſome places twelve foot water, therefore it is not good to run through here, unleſſe that it be a quarter flude or with a ſhippe of greate draught at halfe floude, there it is verie uneven of grounde rockie and ſtonie, The pointe of the Naze is verie ſtonie, foule and uneven, the nearer the ſhoare thwart of that point the ſhoulder, but the nearer the Sands the deepe.

When that the third point of the Naze commeth without the two other points or the other land, and that it doth againe beginne to deepe of, to wete, foure or five fathome then go S. W. ſomewhat ſoutherly, or ſouthweſt and by ſouth, unto the Longſand. buye upon Longſand. Thwart of the Naze is Longſand verie ſteepe, ſo that it can not be wel ſounded with the lead by them that are not there verie wel acquainted, but ſomewhat more to the ſouthwards, you may run alongſt by it in 4 fathome and 3 fathome and a halfe, untill that you get the buye upon Longſand in ſight of you. The northſhoare to the ſouthwards of the Naze is alſo flat, you may runne alongſt by it alſo upon the lead, without any danger.

Buyes upon Longſound and the Spits. The buy upon Longſand lieth in two fathome and a half at half flood, you muſt leave it on the larboard ſide, and the buye upon the Spits, on the ſtarboard ſide, which lieth a litle ſhoulder, they lye aboute ſouth and by eaſt and north and by weſt, a muſker ſhot one from the other. The courſe betwixt the two buyes is S. S. E. and N. N. W. but you muſt reckon well you tryde, whether you run through there with a floude or with The Spits. an ebbe. Upon the Spits, betwixt the two buyes is a halfe floude at leaſt 3 fathome and an halfe, or almoſt 4 fathome, in the right channell, a litle to the ſouthwardes of the buye upon the Spits ſtand two maſtes above water, of a loſt ſhipp, which Whitakers beakon. are good markes. Being over the Spits, the courſe to Whitakers beakon is ſouthſoutheaſt.

Middleplate Aboute half wate, betwixt them ſtand alſo two maſtes more on the ſame Weſt ſide, and over againſt theſe maſtes lieth a middle plate, whereupon lieth a buye on the Weſt ſide: the fareway is alongſt to the weſtwards off this Middle-plate, through betwixte that forefaid buye and the maſter.

To the northwards of the forefaid Middle-plate, goth out a channell by the North ſide off Longſand, which you may faile out and in, called the Kings-deepe. If you come from Whitakers beakon, paſt the Middle-plate, ſo far that you get ſight of the buyes of Longſand or Spits, goet then bouldly eaſtnorth-eaſt and northeaſt and by eaſt into ſea, or upon the lead alongſt by Longſand, but if you ſhould runne into ſea, to the ſouthwards of the Middle-plate, you ſhould with an eaſtnorthe-eaſt Kingsdepe waye fall within the hooke of the Mouſe. This Kings-deepe is a readie channell, and is uſed almoſt by all ſhippes for to runne out at.

For to ſail into the Kingsdeep. For to runne in at this channel out of the ſea, then bring the point of the Naze N. W. from you, and ſaile in ſo with it, untill that you come neare Goemſtiet or Longſand in 5 fathom, goe in then alongſt by it about W. S. W, and ſouthweſt and by weſt, and keepe the ſounding of Longſand, and ſo you ſhall not fayle to runne in ſight of the buye upon the Spittes and the foreſaid maſt to the ſouthwards of it.

From Whitakers beakon to the Schoebeakon the courſe is S. S. W. ſomewhat weſterly, comming thwarte of the Schoebeakon, then lieth the eaſt point of Seppie about ſouth from you, From the Schoebeakon the courſe is alongſt ſouthweſt to the point of Blacktayle, there runneth off a Hooke, which men might ſaile within comming from the northwards: but if you keepe from the ſhoare in ſeven fathom, can not take harte of it, but in five fathom you runne within it. The like Hooke is alſo a litle to the ſouthwards off the Schoebeakon, which you might unawares ſaile within, comming from the ſouthwardes.

From Blacktaile to the beakon upon the Nore, the courſe Schoe beakon. Blacktaile. is Weſtſouthweſt. The Nore is a ſand, lying from the South-point of the maine land of the River, farre to the eaſtwardes, therefore leave the beakon on the larboard ſide, and goe on Weſt alongſt, amidſt the channell into the river, betwixt both lands, as here before hath beene ſaid in the deſcription of the Fithers deepe.

From Aelbrough alongſt by Dunwich to Covehit the The Nore. coaſte lieth North and by Eaſt ſomewhat eaſterly, and South and by Weſt or ſomewhat weſterly five leagues, but from Covehit to Leyſtaf north and ſouth 2 leagues Aelbrough, Dunwich and the ſands lying thereabouts, are deſcription here before.

Betwixt Dunwich and Covehit lieth the haven off Sowle Sowle, which is a litle ſhoolde river, a litle within it divideth it ſelf into three parts, upon the northermoſt arme lieth Sowle upon the middlemoſt Walderſwyke, and upon the ſouthermoſt Dunwich. Dunwich.

Covehit hath a high ſharpe ſteeple, thwart off it lieth a banck not far from land, which falleth almoſt drye at low water, but at half ſtoud you may ſaile through betwix it and the land in three fathome, upon the outher ſide it is verie ſteepe, ſo that you can not come nearer it then 9 or 10 fathom. When the ſteeple of Eaſton is weſtnorthweſt from you, then you are to the ſouthwards of the banck, and when the ſteeple off Covehit is ſouthweſt and by weſt from you, then you are to the northwards of it.

Two leagues to the northwardes of Covehit lieth Leyſtaf, Leyſtaf. and two leagues more to the northwards of it lieth Yarmouth. The ſteeple of Leyſtaf is a high ſharp ſteeple, and ſtandeth a greate muſket ſhot within the land from the houſe, ſo that in ſailing alongſt you may bring the ſteeple on both ſides of the houſes. Of from Leyſtaf begin the banck or Holmes of Yarmouth, and lye alongſt to the northwards paſt Yarmouth, until thwart of Winterton, there go divers channels through them, which men may ſaſt through, upon divers marcks, for thoſe that are there acquainted, you may ſaile through within theſe bancks, of from Leyſtaf untill paſt Winterton.

For to come within the Yarmouth. If you will run through from before Leyſtaf within theſe banks, then looke out for the fire beakon which ſtand by Leyſtaf, which at two litle white houſes, the one ſtandeth beneath upon the chindle on the ſea ſide, and the Innermoſt upon a litle hommanock, ſomewhat farther within the land. When you come from the ſouthwards, they ſhew themſelves to the northwards of the towne, but come at laſt thwart of it. In the night there is alwayes fired upon them, for to fail in there alſo by night. Bring theſe foreſaid fireBeakons N.W. and by N. or ſomewhat more northerly from you and ſaile in ſo right with them either by night or by daye, the church of Leyſtaf cometh then to the ſouthwards of the towne over a Countrie houſe by the water ſide, when you come againſt the channell, there is at low water no more then 3 fathom depth, keep theſe foreſaid fireBeakons one in the other, bring the Innermoſt rather a litle to the northwards of the outhermoſt, for to avoid a litle plate, which lieth on the ſouth ſide of the Deep, but the channell is indifferent wyde, run until you com againſt the ſtrand in two fathom and a half or two fathome, ſo near as you will or can, and go then up northwardes alongſt by the ſhoare, you ſhal then (being ſailed a little to the northwards) meet with a flat, whereupon remaineth at low water leſſe then two fathom depth, with laden ſhips, you muſt anckor before that flat and ſtay for high water, it floweth there aboute eight foot, up and downe, ſo ſoone as you are over the flat it will be 5, 6, and 7 fathom deep, edge then to the ſhoare, and ſail toward it, and then you come before the Brewehouſe, there is the roade, where you may anckor in 4, 5, or 6 fathome, from thence northward toward Yarmouth alongſt the ſhoare is all over good anckoring and good ground.

Haven of Yarmouth. About an Engliſh mile or ſomewhat more to the ſouthwards of the towne Yarmouth, is the haven of Yarmouth, is hath two wooden heads, where you muſt ſaile in betwixt them both againſt the highest water, when the ſtrongeſt of the floud is ſpent, at halfe floud it is dangerous, becauſe of the ſtrong cyde, which ſhould lightly carrie you into the bight, againſt the ſhoare, (againſt your will) it is alſo beſt to runne in alongſt by the ſoutherhead, there it is deepeſt. At Yarmouth in the roade Rode before Yarmouth. men doe commonly anckor to the northwards of the haven, right thwart of the towne, in 5, 6, 7, or 8 fathom, the nearer you anckor to the ſandes the deeper water you ſhall have, but all good ſand and ſoft grounds.

If you will ſaile into the Roade of Yaermouth through the Holmes, then bring the ſharpe litle ſteepe, that ſtandeth to the northwards off Yaermouth within the land, over the broade

broade caſtle, or bring the mill to the north ſide of the towne: keep theſe marks ſo ſtanding, and goe in ſo weſtnorthweſt, you ſhall find in this channell not leſſe water, then eight or nine fathom at halfe flood, this channell is called S. Nickolas chan- Nicolas Chan. nell: on the north ſide it is deepeſt being come in, the roade is right before the towne in 5 and 6 fathom.

Thwart or over againſt the haven of Yarmouth goeth alſo a channell through the Holmes, for to ſaile in through there comming from the ſouthwards, then bring Souton over the north ſide of the haven, the great tree betwixt Northon and that flat little houſe or Caſtle, ſaile in right with them, and keep theſe marck ſo ſtanding, untill that you be within the Holms, within them lieth a plate on the ſtarboard ſide, a little to the northwards off the haven, called the Middle ground, you may ſaile about it on both ſides, on the inner ſide in 5 fathom, but towards the Holmes, or about to the eaſtwards off it in 8 and 9 fathom.

From Yarmouth to Winterton, the coaſt lieth north and by Weſt and Northnorthweſt two leagues.

If you will ſail from Yarmouth forth through within the bancks to the northwards, ſail along by the land, and keep the ſounding off the ſhore in 5, 6, or 7 fathom, untill that you have the two firebeakons which ſtand a little to the northwards of Caſter, one in the other, ſail then right with them, either by day or by night, (in the night there is fired upon them) you ſhall ſo run over a flat, through betwixt two buyes, which lye each off them upon a tail off a ſand, ſail bouldlie in with the foreſaid firebeakons, untill you come againe neare the ſhoare, in 5 or 6 fathom, being come by the ſhoare, run then again alongſt by it, and keepe the ſounding thereof as before, al alongſt until you come before Winterton.

Thwart of Winterton runneth off a dangerous rif, which is dangerous to ſaile about by night, if men doe come to near it, which is upon the end ſo ſteep, that (in three fathom or two fathom and a half) you ſhall not be aſhips length off from it. But when as you, (comming from the ſouthwards) keep your felf in 6 or 7 fathom, then you can not fail ſo near to it. To the ſouthwards off that riff upon the land, ſtandeth a firetowre, which is verie good to be knowne, with a firebeakon, and alſo a little white houſe, when theſe come one in the other, then you are thwarte of the point of the riffe.

To the northwards eſt this riff upon the land ſtandeth two vvhite firebeakons, whereupon there is fired by night, for to avoid this riff. When as you come thwart off the point, then are theſe alſo one in the other, ſo that theſe doe ſerve for thwart marcks, and other to the ſouthwards of them for longſt marcks, for theſe that will ſaile about it from the ſouthwards. Comming from the northwards alongſt the ſhoare in 5 or 6 fathom, until you come by the firebeakons upon the north ſide, you muſt keep ſomewhat of from the ſhoare, before they come one in the other, or els you ſhould run on againſt the rif. When they are one in the other then they ſtand ſouthweſt and by weſt from you, and when as the firebeakon to the ſouthwards off Winterton commeth to be ſouthweſt, ſomewhat more weſterly from you, then you are thwart off the point of the riff: you may not alſo run about far within that riff, for then you ſhould lightly be foule off the grounds to the eaſtwards off it, ſpecially when you come from the northwards for there it is not verie wide betwixt them both.

From Winterton to Haesbrough point, the courſe lyeth northweſt 3 leagues.

Betwixt Haesbrough and the Admirals houſe ſtands a ruinous tower upon the ſtrand. When as you keep it and the ſteeple of Haesbrough one in the other comming from the northwards, then you run right upon the point of the foreſaid riffe. Foure leagues vvithout the land lyeth Winterton ſand, the ſouth end where off lyeth about eaſt and the north end northeaſt from Winterton.

Thwart of Admirals houſe, not far from the ſhoare, lieth alſo a little plate where no ſhip can goe over, but if you goe in his or ſeven fathom, you can not fayle to neare it, you may alſo runne through in two fathome, betwixt this plate and the land.

From Haesbrough to Cromer, the coaſt lieth alongſt north weſt and by weſt, and W.N.W. 3 or 4 leagues.

Of the depts and ſhoulder about theſe places, and in what depts men may ſee the land.

Five or ſixe leagues north and by eaſt and northnortheaſt from the north Forland or from Margat lieth a bancke called Kentiſh-knop, upon it is 3 fathom water, being by it, you may even ſee the land from belowe.

Northeaſt and by N. from the N. Forland 9 or 10 leagues, and about 8 from the Naye, eight leagues into the ſea, lieth a banck called the Galloper, of 5, 6, and 7 fathom deep.

The weltrocks is a ſtonie ground, lying betwegne the Cours and Longſand, whereupon is no more then 2 fathom water at a half ſtoud.

VVithoutthat ſand or Harwich 5 leagues from the Naze, it is 20 and 22 fathom deepe, being there you may ſee the land.

Thwarte of Orfornes you may ſee the land from below, in two and twentie fathome.

Five or five leagues without Leyſtaffe and Yaermouth ſee and eaſt into ſea, it is 17 and 18 fathom deep, there you may ſee the land.

Foure leagues eaſt and by ſouth from land, without the Holmes off Yaermouth lieth a banck, called the Newſand, which is not deepe then two fathom.

Eaſtnortheaſt at leaſt 7 leagues from land thwart of Yarmouth it is 11 fathom, the ground red groſſe ſand with little round ſtone, being there you may even ſee the land from below.

Thwart of winterton and Cromme 7 or 8 leagues from the land it is 18, and 19 fathom deep, and there you may ſee the land.

VVinterton ſand lieth 4 or 5 leagues from the land N.E. from VVinterton.

What moon maketh high water at divers places.

At the north Forland a north and ſouth moone maketh high water.

VVithin the Thames a ſouth and by eaſt moone.

before the Thames, at Harwich and Orfordnes 2 S.S.E. moone.

At Leyſtaf and Yarmouth a Vſe moone maketh high water.

VVithout the bancks of Yarmouth, and before Cromer, a ſoutheaſt moone maketh full ſea.

Betwixt the bancks of Harwich and the Holmes of Yarmouth the flood falleth ſouth and the ebbe north.

Thwart of the bancke of VVinterton and Cromer the flood falleth E.S.E. and the ebbe northnortheaſt.

Of the tydes and courſes of the ſtreames.

From the north Forland the flood falleth to the Rocolvers, and over the Brakes or Lowland by ſouth.

VVithout about Goodwin towards Kentiſh knock, the flood falleth north and by weſt, and northnortheaſt there commeth the flood alſo againſt it from the northwards, and meet one another by the Galloper, with very great ripeling and noyſe, (whereof this banck is alſo called the Galloper) and falleth to the weſtwards into the ſands and channels, and alſo to the eaſtwards towards Flanders.

Betwixt the north Forland and Orfordneſſe the ſtreame falleth without the ſands ſouth and by eaſt, and ſouthſoutheaſt.

When you are to the northwards of the Galloppar, then you can reckon no ebbe, then that which runneth alongſt England to the northwards, the ſtreames fall there all alongſt the coaſte. To the ſouthwards of the Galloper, the ebbe goeth to the contrary, to the ſouthwardes, and the flood to the northwards.

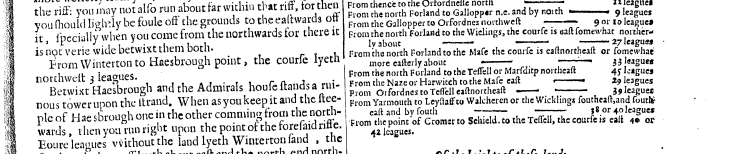
Courſes and Diſtances.

From the north Forland to the north end of Goodwind the courſe is ſouth and by eaſt	one great league
From the north Forland to Kentiſhknock northeaſt and by eaſt and N. N. E. 4 or 5 leagues	
From thence to the Orfordneſſe north	12 leagues
From the north Forland to Galloppar n.e. and by north	9 leagues
From the Galloppar to Orfordnes northweſt	9 or 10 leagues
From the north Forland to the Wielings, the courſe is eaſt ſomewhat northerly about	27 leagues
From the north Forland to the Maſe the courſe is eaſtnortheaſt or ſomewhat more eaſterly about	33 leagues
From the north Forland to the Teffell or Marſdiip northeaſt	45 leagues
From the Naze or Harwich to the Maſe eaſt	29 leagues
From Orfordnes to Teffell eaſtnortheaſt	39 leagues
From Yarmouth to Leyſtaf to Walcheren or the Wicklings ſoutheaſt, and ſouth eaſt and by ſouth	36 or 40 leagues
From the point of Cromer to Schield, to the Teffell, the courſe is eaſt	40 or 42 leagues.

Of the heights of theſe lands,

The north Forland lieth in	51 degrees 25 minutes
Orfordnes lieth in	52 degrees 12 minutes

How theſe lands doe ſhew themſelves at Sea.



twixt Ordfornes or Whitingsand and the Naes lieth moſt S. W. and by S. and is 6, 7, and 8 fathome deepe, in turning to Windewards, you may run to the ſhoare in 5 and 4 fathome, but cloſe to the ſands it is deeper, to wete, 8, 9, and 10 fathome, the nearer the ſands the deeper Water.

The Naze. But for to faile from Bolſy to the Naze, you muſt marcke the ſteeple of Baſil, when it commeth within a capſtone barres length neere to the S. end of the cliffe, then keep them ſo ſtanding, ſo long untill that the houſe upon the Naze come over the two fields, which lye on againſt the High land, or come over a blak head upon the ſea ſide, faile then right in with them, until that the ſteeple of Harwich come to be N. N. W. from you in the litle valleye of a redde cliffe, leave then the firſt markes, keepe the ſteeple of Harwich in that litle valleye, and goe on ſouthſoutheaſt, untill that the thirde pointe off the Naze come without the 2 other points, ſo you ſhal run throug betwixt the Naze and the courſe, there remaineth at lowe water no more then eight, tenne, and at ſome places twelve foot water, therefore it is not good to run through here, unleſſe that it be a quarter ſtloade or with a ſhippe of greate draught at halfe ſtloade, there it is verie uneven of grounde rockie and ſtonie, The pointe of the Naze is verie ſtonie, foule and uneven, the nearer the ſhoare t hwart of that point the ſhoulder, but the nearer the Sands the deepe.

When that the third point of the Naze commeth without the two other points or the other land, and that it doth againe beginne to deepe of, to wete, foure or five fathome then go S. W. ſomewhat ſoutherly, or ſouthweſt and by ſouth, unto the Longland. buye upon Longſand. Thwart of the Naze is Longland verie ſteepe, ſo that it can not be wel ſounded with the lead by them that are not there verie wel acquainted, but ſomewhat more to the ſouthwards, you may run alongſt by it in 4 fathome and 3 fathome and a halfe, untill that you get the buye upon Longſand in ſight of you. The northſhoare to the ſouthwards of the Naze is alſo flat, you may runne alongſt by it alſo upon the lead, without any dainger.

Buyes upon Longſound and the Spits. The buy upon Longſand lieth in two fathome and a half at half ſtloud, you muſt leave it on the larboard ſide, and the buye upon the Spits, on the ſtarboard ſide, which lieth a litle ſhoulder, they lye aboute ſouth and by eaſt and north and by weſt, a muſket ſhot one from the other. The courſe betwixt the two buyes is S. S. E. and N. N. W. but you muſt reckon well your tyde, wheter you run through there with a ſloude or with
The Spits. an ebbe. Upon the Spits, betwixt the two buyes is a halfe ſloude at leaſt 3 fathome and an halfe, or almoſt 4 fathome, in the right channell, a litle to the ſouthwardes of the buye upon the Spits ſtand two maſtes above water, of a loft ſhipp, which
Whitakers beakon. are good markes. Being over the Spits, the courſe to Whitakers beakon is ſouthſouthweſt.

Middleplate Aboute half wate, betwixt them ſtand alſo two maſtes more on the ſame Weſt ſide, and over againſt theſe maſtes lieth a middle plate, whereupon lieth a buye on the Weſt ſide: the fareway is alongſt to the weſtwards off this Middle-plate, through betwixte that forefaid buye and the maſtes.

To the northwards of that forefaid Middle-plate, goth out a channell by the ſouth ſide off Longſand, which you may faile out and in, called the Kings-deepe. If you come from Whitakers beakon, paſt the Middle-plate, ſo far that you get ſight of the buyes of Longſand or Spits, goet then bouldiv eaſt north-eaſt and northeaſt and by eaſt into ſea, or upon the lead alongſt by Longſand, but if you ſhould runne into ſea, to the ſouthwards of the Middle-plate, you ſhould with an eaſt northeaſt
Kingsdepe waye fall within the hooke of the Mouſe. This Kings-deepe is a readie channell, and is uſed almoſt by all ſhippes for to runne out at.

For to fall into the Kingsdeep. For to runne in at this channel out of the ſea, then bring the point of the Naze N. W. from you, and faile in ſo with it, until that you come neare Goemfliet or Longland in 5 fathom, goe in then alongſt by it about W. S.W, and ſouthweſt and by weſt, and keepe the ſounding of Longland, and ſo you ſhall not fayle to runne in ſight of the buye upon the Spittes and the forefaid maſt to the ſouthwards of it.

From Whitakers beakon to the Schoebeakon the courſe is S. S. W. ſomewhat weſterly, comming thwarte of the Schoebeakon, then lieth the eaſt point of Seppie about ſouth from you. From the Schoebeakon the courſe is alongſt ſouthweſt to the point of Blacktayle, there runneth off a Hooke, which men might faile within comming from the northwards: but if you keepe from the ſhoare in ſeven fathom, can not take hurte of it, but in five fathom you runne within it. The like Hooke is alſo a litle to the ſouthwards off the Schoebeakon, which you might unwares faile within, comming from the ſouthwardes.

From Blacktaile to the beakon upon the Note, the courſe is Weſtſouthweſt. The Nore is a ſand, lying from the South-point of the maine land of the River, farre to the eaſtwardes, therefore leave the beakon on the larboard ſide, and goe on Weſt alongſt, amidſt the channell into the river, betwixt both lands, as here before hath beene ſaid in the deſcription of the Fiſhers deepe.

From Aelbrough alongſt by Dunwich to Covehit the coaſte lieth North and by Eaſt ſomewhat eaſterly, and South and by Weſt or ſomewhat weſterly five leagues, but from Covehit to Leyſtaf north and ſouth 2 leagues Aelbrough, Dunwich and the lands lying thereabouts, are deſcription here before.

Betwixt Dunwich and Covehit lieth the haven off Sowle Sowle which is a litle ſhoalde river, a litle within it divideth it ſelf into three parts, upon the northermoſt arme lieth Sowle upon the middlemoſt Walderſwyke, and upon the ſouthermoſt Dunwich. Dunw

Covehit hath a high ſharpe ſteeple, thwart off it lieth a banck not far from land, which falleth almoſt drye at low water, but at half ſtloud you may faile through betwix t itand the land in three fathome, upon the outher ſide it is verie ſteepe, ſo that you can not come nearer it then 9 or 10 fathom. When the ſteeple of Eaſton is weſtnorthweſt from you then you are to the ſouthwards of the banck, and when the ſteeple off Covehit is ſouthweſt and by weſt from you, then you are to the northwards of it.

Two leagues to the northwardes of Covehit lieth Leyſtaf, Ley and two leagues more to the northwards of it lieth Yarmouth. The ſteeple of Leyſtaf is a high ſharp ſteeple, and ſtandeth a greate musket ſhot within the land from the houſe, ſo that in ſailing alongſt you may bring the ſteeple on both ſides of the houſes. Off from Leyſtaf begin the banck or Holmes of Yaermouth, and lye alongſt to the northwards paſt Yarmouth, untill thwart of Winterton, there go divers channels through them, which men may faſt through, upon divers marcks, for theſe the are there acquainted, you may ſaile through within theſe bancks, of from Leyſtaf untill paſt Winterton.

If you will run through from before Leyſtaf within theſe For th banks, then looke eat for the fire beakon which ſtand by Ley- tane ſtaf, which at two litle white houſes, the one ſtandeth beneath Yarm upon the clindle on the ſea ſide, and the Innermoſt upon a litle hommock, ſomewhat farther within the land. When you come from the ſouthwards, they ſhew themſelves to the northwards of the towne, but come at laſt thwart of it. In the night there is alwayes fired upon them, for to fail in there alſo by night. Bring theſe foreſaid fireBeakons N.W. and by N. or ſomewhat more northerly from you and faile in ſo right with them either by night or by daye, the church of Leyſtaf cometh then to the ſouthwards of the towne over a Countrie houſe by the water ſide, when you come againſt the channell, there is at low water no more then 3 fathom depth, keep theſe foreſaid fireBeakons one in the other, bring the Innermoſt rather a litle to the northwards of the outermoſt, for to avoid a litle plate, which lieth on the ſouth ſide of the Deep, but the channell is indifferent wyde, run until you com againſt the ſtrand in two fathom and a half or two fathome, ſo near as you will or can, and go then up northwardes alongſt by the ſhoare, you ſhal then (being ſailed a litle to the northwards) meet with a flat, whereupon remaineth at low water leſſe then two fathom depth, with laden ſhips, you muſt anckor before that flat and ſtay for high water, it ſloweth there about eight foot, up and downe, ſo ſoone as you are over the flat it will be 5, 6, and 7 fathom deep, edge then to the ſhoare, and ſail toward it, and then you come before the Brewehouſe, there is the roade, where you may anckor in 4, 5, or 6 fathome, from thence northward toward Yarmouth alongſt the ſhoare is all over good anckoring and good ground.

About an Engliſh mile or ſomewhat more to the ſouthwards Haven of the towne Yarmouth, is the haven of Yarmouth, is hath two wooden heads, where you muſt faile in betwixt them both againſt the highelt water, when the ſtrongeſt of the floud is ſpent, at halfe floud it is dangerous, becauſe of the ſtrong tyde, which ſhould lightly carrie you into the bight, againſt the ſhoare, (againſt your will) it is alſo beſt to runne in alongſt by the ſoutherhead, there it is deepeſt. At Yarmouth in the roade men doe commonly anckor to the northwards of the haven, right thwart of the towne, in 5, 6, 7, or 8 fathom, the nearer you anckor to the ſandes the deeper water you ſhall have, but all good ſand and ſoft grounds.

If you will faile into the Roade of Yaermouth through the Holmes, then bring the ſharpe litle ſteepe, that ſtandeth to the northwards off Yaermouth within the land, over the broade

broade caſtle, or bring the mill to the north ſide of the towne: keep theſe marks ſo ſtanding, and goe in ſo weſtnorthweſt, you ſhall find in this channell not leſſe water, then eight or nine fathom at halfe ſloud, this channell is called S. Nickolas chan-Nickolas channel. nell: on the north ſide it is deepeſt being come in, the roade is right before the towne in 5 and 6 fathom.

Thwart or over againſt the haven of Yarmouth goeth alſo a channell through the Holmes, for to faile in through there comming from the ſouthwards, then bring Sourton over the north ſide of the haven, the great tree betwixt Northon and that flat litle houſe or Caſtle, faile in right with them, and keep theſe marck ſo ſtanding, untill that you be within the Holmes, within them lieth a plate on the ſtarboard ſide, a litle to the northwards off the haven, called the Middle ground, you may faile about it on both ſides, on the inner ſide in 5 fathom, but towards the Holmes, or about to the eaſtwards off it in 8 and 9 fathom.

From Yarmouth to Winterton, the coaſt lieth north and by Weſt and Northnorthvveſt two leagues.

If you will fail from Yarmouth forth through vvithin the bancks to the northwards, fail along by the land, and keep the founding off the ſhore in 5, 6, or 7 fathom, untill that you have the two firebeakons which ſtand a litle to the northwards of Caſter, one in the other, fail then right with them, either by day or by night, (in the night there is fired upon them) you ſhall ſo run over a flat, through betwixt two buyes, which lye each off them upon a tail off a ſand, fail bouldlie in with the foreſaid firebeakons, untill you come againe neare the ſhoare, in 5 or 6 fathom, being come by the ſhoare, run then again alongſt by it, and keepe the founding thereof as before, al alongſt untill you come before Winterton.

Thwart of Winterton runneth off a dangerous rif, which is dangerous to faile about by night, if men doe come to near it, which is upon the end ſo fteep, that (in three fathom or two fathom and a half) you ſhall not be aſhips length off from it. But when as you, (comming from the ſouthwards) keep your fel in 6 or 7 fathom, then you can not fail ſo near to it. To the ſouthwards off that riff upon the land, ſtandeth a firetowre, which is verie good to be knowne, with a firebeakon, and alſo a litle white houſe, when theſe come one in the other, then you are thwarte of the point of the riffe.

To the northwards eſt this riff upon the land ſtandeth two vvhite firebeakons, whereupon there is fired by night, for to avoid this riff. When as you come thwart off the point, then are theſe alſo one in the other, ſo that theſe doe ſerve for thwart marcks, and the other to the ſouthwards of them for longſt marcks, for theſe that will faile about it from the ſouthwards. Comming from the northwards alongſt the ſhoare in 5 or 6 fathom, until you come by the firebeakons upon the north ſide, you muſt keep ſomewhat of from the ſhoare, before they come one in the other, or elſe you ſhould run on againſt the rif. When they are one in the other then they ſtand ſouthweſt and by weſt from you, and when as the firebeakon to the ſouthwards off Winterton commeth to be ſouthweſt, ſomewhat more weſterly from you, then you are thwart off the point of the riff: you may not alſo run about far within that riff, for then you ſhould lightly be foule off the grounds to the eaſtwards off it, ſpecially when you come from the northwards for there it is not verie wide betwixt them both.

From Winterton to Haesbrough point, the courſe lyeth northweſt 3 leagues.

Betwixt Haesbrough and the Admirals houſe ſtands a ruinous tower upon the ſtrand. When as you keep it and the ſteeple of Haesbrough one in the other comming from the northwards, then you run right upon the point of the foreſaid riffe. Foure leagues vvithout the land lyeth Winterton land, the ſouth end where off lyeth about eaſt and the north end northeaſt from Winterton.

Thwart of Admirals houſe, not far from the ſhoare, lieth alſo a little plate where no ſhip can goe over, but if you goe in hx or ſeven fathom, you can not fayle to neare it, you may alſo runne through in two fathome, betwixt this plate and the land.

From Haesbrough to Cromer, the coaſt lieth alongſt north weſt and by weſt, and W. N.W. 3 or 4 leagues.

Of the depts and ſhouldes about theſe places, and in what depts men may ſee the land.

Five or ſixe leagues north and by eaſt and northnortheaſt from the north Forland or from Margat lieth a banck called Kentiſh-knop, upon it is 3 fathom water, being by it, you may even ſee the land from beſore.

Northeaſt and by N. from the N. Forland 9 or 10 leagues, and about E. from the Naze, eight leagues into the ſea, lieth a banck called the Galloper, of 5, 6, and 7 fathom deep.

The weſtrocks is a ſtonie ground, lying betweene the Coure and Longland, whereupon is no more then 2 fathom water at a half ſloud.

VVithout that ſand or Harwich 5 leagues from the Naze, it is 20 and 22 fathom deepe, being there you may ſee the land.

Thwarte of Orfornes you may ſee the land from below, in two and twentie fathome.

Five or five leagues without Leyſtaffe and Yaermouth ſe. and eaſt into ſea, it is 17 and 18 fathom deep, there you may ſee the land.

Foure leagues eaſt and by ſouth from land, without the Holmes off Yaermouth lieth a banck, called the Newſand, which is not deepe then two fathom.

Eaſtnortheaſt at leaſt 7 leagues from land thwart of Yaimouth it is 15 fathom, the ground red grofle ſand with litle round ſtones, being there you may even ſee the land from below.

Thwart of winterton and Cromme 7 or 8 leagues from the land it is 18, and 19 fathom deep, and there you may ſee the land.

VVinterton land lieth 4 or 5 leagues from the land N.E. from VVinterton.

What moon maketh high water at divers places.

At the north Forland a north and ſouth moone maketh high water.

VVithin the Thames a ſouth and by eaſt moone.

Before the Thames, at Harwich and Orfordnes a S.S.E. moone.

At Leyſtaf and Yarmouth a E.ſe. moon maketh high water.

VVithout the bancks of Yarmouth, and before Scolmer, a ſoutheaſt moone maketh full ſea.

Betwixt the bancks of Harwich and the Holmes of Yarmouth the flood falleth ſouth, and the ebbe north.

Thwart of the bancks of VVinterton and Cromer the flood falleth E.ſe. and the ebbe northnorthweſt.

Of the tydes and courſes of the ſtreames.

From the north Forland the floud falleth to the Rocolvers, and over the Brakes w.ſw. and by ſouth.

VVithout about Goodwin towards Kentiſh knock, the flood falleth north and by weſt, and northnorthweſt there commeth the flood alſo againſt it from the northwards, and meet one another by the Galloper, with very great rippeling and noyſe, (whereof this banck is alſo called the Galloper) and falleth to the weſtwards into the ſands and channels, and alſo to the eaſtwards towards flanders.

Betwixt the north Forland and Orfordneſſe the ſtreame falleth without the ſands ſouth and by eaſt, and ſouthſoutheaſt.

When you are to the northwards of the Galloper, then you can reckon no ebbe, then that which runneth alongſt England to the northwards, the ſtreames fall more all alongſt the coaſts. To the ſouthwards of the Galloper, the ebbe goeth to the contrary, to the ſouthwardes, and the flood to the northwards.

Courſes and Diſtances.

From the north Forland to the north end of Goodwind the courſe is ſouth and by eaſt ——— ——— ——— one great league

From the north Forland to Kentiſhknock northeaſt and by eaſt and N. N. E. 4 or 5 leagues

From thence to the Orfordneſſe north ——— 12 leagues

From the north Forland to Galloper n.e. and by north ——— 9 leagues

From the Galloper to Orfordnes northweſt ——— 9 or 10 leagues

From the north Forland to the Wielings, the courſe is eaſt ſomewhat northerly about ——— ——— ——— 27 leagues

From the north Forland to the Maſe the courſe is eaſtnortheaſt or ſomewhat more eaſterly about ——— ——— 33 leagues

From the north Forland to the Teffell or Marſdirp northeaſt ——— 45 leagues

From the Naze or Harwitch to the Maſe eaſt ——— 29 leagues

From Orfordnes to Teffell eaſtnortheaſt ——— ——— 30 leagues

From Yarmouth to Leyſtaff to Walcheren or the Wicklinge ſoutheaſt, and ſouth eaſt and by ſouth ——— 38 or 40 leagues

From the point of Cromer to Schield. to the Teffell, the courſe is eaſt 40 or 42 leagues.

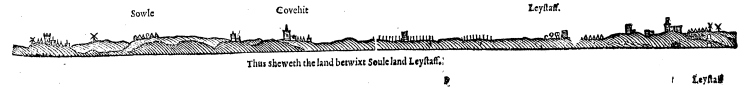
Of the heights of theſe lands,

The north Forland lieth in ——— ——— 51 degrees 21 minuten

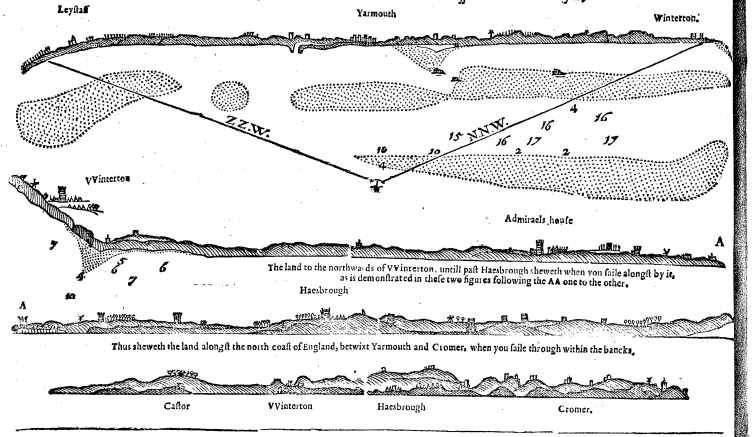
Orfordnes lieth in ——— ——— 52 degrees 12 minuten

How theſe lands doe ſhew themſelves at Sea.

Thus ſheweth the coaſt of England betwixt Orfordnes or Sowle haven.



Thus ſheweth the land betwixt Soule land Leyſtaff.



The tenth demonftration,

Inwhich, the coaft off England are fet forth betweene Cromer and Orkeney.

THe land lieth from Cromer to Bornum firft W.N.W. and Weft and by north, and then weft, and W. & by S. 9 or 10 leagues.

From Cromer to Blakeney it is 3 or 4 l.

Blakeney. At Blakeney ſtandeth a high ſteeple, which you may ſee alongſt farre over the land, when it commeth to the litle ſteeple, then you have the firſt buy of the channell, which lieth at the S. end of the Pole, which is a ſand at the weſt ſide of the channell of Blakeney, go from the firſt buy to the other and alongſt by them, untill you come within the Haven, this is a tyde-haven, where men doe lye dry at low water 4 leagues to the Weſtwards of Blackeney lieth Wels, betwixt them both lieth the **Pol and Pyper** - foreſaid ſhould, called the Pol and Pyper, there it is ſhould for ot at ſea. At the Weſt end of this ſhould, goeth in the Deep or Wels, the beakons that you muſt faile in alongſt by, ſtand al alongſt by the Pyper, When Hoebrom ſtandeth eaſt from you, then you are to the weſtwards of the Pyper thwart of it is good **VVelles.** road in 6 fathom. Wels lieth then fourheaſt from you, and the trees ſtand then alſo againſt the ſteeple, then you may faile open in to the Haven of Wels, alongſt by the foreſaid beakons.

Betwixt Wels and Bornum lieth a back, you may ride under it in 5 or 6 fathom, at halfe flood there is upon it no more then 2 fathom water.

Bornum. He that will faile into Bornum, muſt goe in at high Water, and he muſt bring the ſteeple againſt the Black-houſe, and ſail ſo in by the beakons, leaving them on the larboard ſide. Theſe are all tyde-haven.

Chappel. From Bornum to Chappel, the courſe is Weſtſouthweſt, 2 leagues, to the northwards of it lieth the Sonck, which is a ſand that falleth dry at low Water. You may faile about it on **the Sonck** both ſides the Sonck unto Lin.

Eaſter-channel of Lin. For to faile in to the eaſter channell of Lin, then faile about to the eaſtwards of the Sonck, and bring that wood of trees, over the point of Sitſein or Suytſon, and Chappell eaſt from you, then goe in S.E. and by S. and you ſhall find the firſt buy, then in S. and by W. and S.S.W. and by little and little more weſterly; untill you come about the point, there the buyes and beakons ſhall ſhew you the way.

When you come about the point, then you may run through the ſands, in to the norther channell, and faile out againe by the ſame in to ſea, by the buyes and markes that are there of.

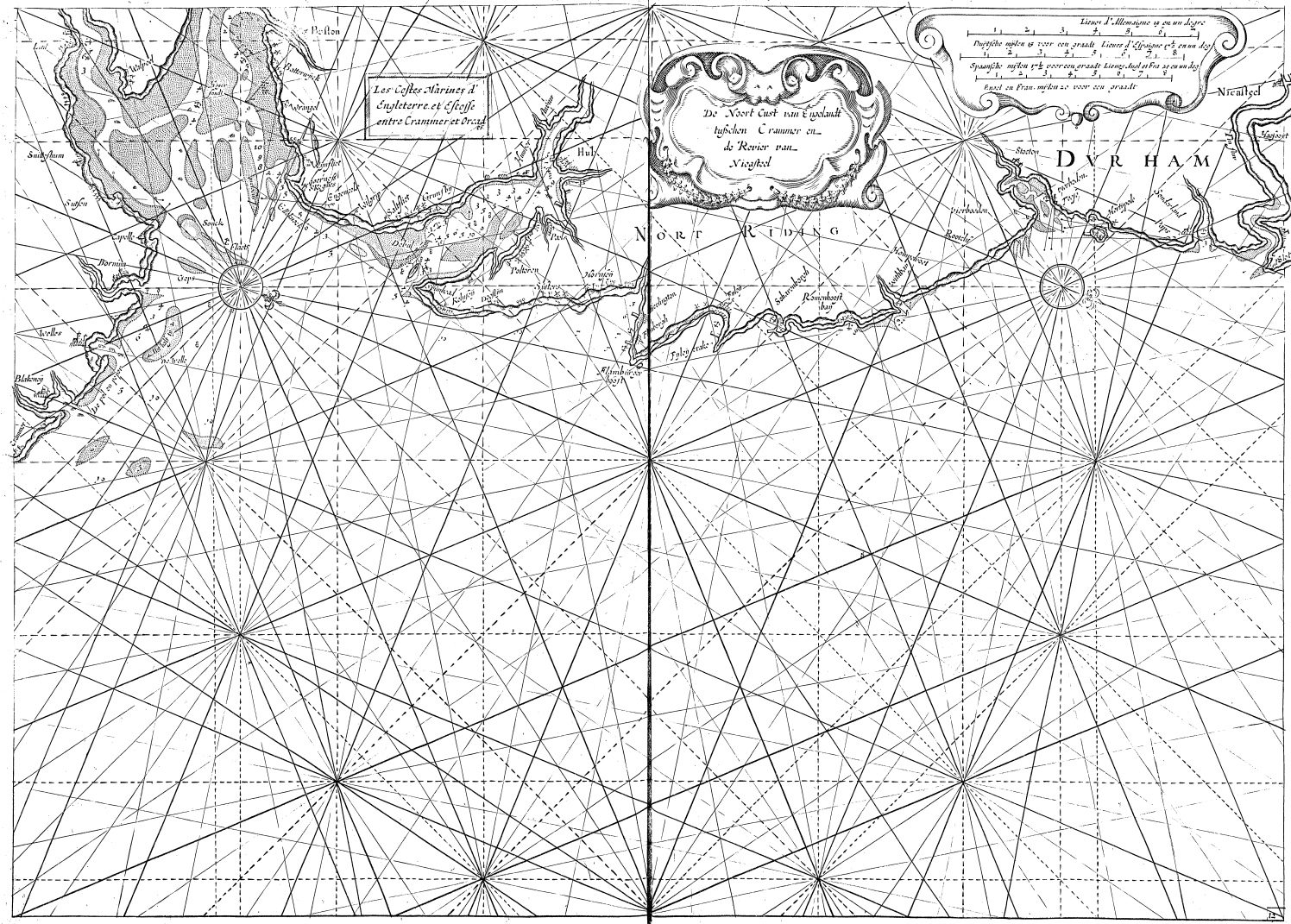
This norther Channell lieth in to ſea northeaſt and northeaſt and by eaſt, and is very well buyed and beakoned.

You may alſo faile in to the weſtwards of the Stonck, to we- **Weſter-channel of Lin.** te, ſouth and by eaſt in alongſt by it and runne ſo to the firſt buye, and then from the buye alongſt by the beakons unto Lin before the towne. When you come from the eaſtwards, you may well run through within to the Sonck, alongſt by the land, cloſe alongſt by Chappell, and in ſouth and by Weſt unto the foreſaid firſt buye.

For to faile from Cromer or Blackeney to Boſton deepe, **Boſton deepe.** you muſt goe on weſt and by north, untill you come by the land betwixt the Hommer, and Lagerneſſe: From the Soncke lieth a long banck, called the Flats, north into ſea a league, which at low water falleth dry at divers places. You runne with the foreſaid weſt and by north courſe, (when you are by Cromer or Blakeney a little without the land) alongſt without, or to the Northwards of this banck, at high Water, you may well goe over it, the ground on the eaſt ſide goeth up flat and plaine, run boldly to it without feare, untill you come in foure or three fathom, hee that uſeth his lead can take no hurt of it, but on the inner ſide, that is, on the Weſt ſide it is very ſteepe, ſo ſoone as you be over the ſhouldeſt, you ſhal get ſuddenly deep water, and good ſand ground, under it or within it, it is good riding for eaſterly winds.

For to faile in to Boſton deepe, through within the Knock **For to ſail into boſton deep.** or Elle-knock, you muſt keepe the ſounding of the ſhoare in foure or five fathom, ſo long untill that the point of Lagherneſſe be weſtnorthweſt from you. Betwixt the ſhoare and Elle- **Elleknock** knock remaineth at low water, five fathom in the middeſt off the Channell, but Elleknock falleth dry at low Water. When that Lagerneſſe is weſtnorthweſt from you, then goe on ſouth eaſt, through betwixt Elleknock and the ſhould, (which ſhoteth off from the ſhoare to the weſtwards of Lagerneſſe) untill that you get againe depth of ſix or ſeven fathom, in this going over remaineth at low water, no more then two fathom, but it floweth there about three fathom up and downe. Being over it, then goe on ſouthweſt alongſt betwixt Longſand and **Longſand.** the ſhould, which lieth off from the ſhoare, there it is deepe betwixt then both nine and ten fathom, you may found both ſides, (as well the ſhould which lyeth off from the land, as Longſand) in five fathom, but the flat is ſomewhat ſteeper then Longſand.

For


Les Costes Marines d'
Engleterre et Escosse
entre Cranmer et Orcad
De Noort Cust van Engelandt
tusschen Cranmer en
de Revier van
Nieustel
Lieues d'Allemagne 15 en un degré
Postsche mylen 15 voor een graadt Lieues d'Espagne 17½ en un deg.
Spaensche mylen 17½ voor een graadt Lieues Anglo et Fra 20 en un deg.
Engel en Fran. mylen 20 voor een graadt
NORT RIDING
DVRHAM
Newcastel
Hull
Yarmouth
Scarborough
Whitby
Sunderland
Stockton
Durham
Hartlepool
Berwick
Yorck
Boston
Lincoln
Grimsby
Flamborough
Spurnhead
Holy Island
Farn Island
Coquet Island
Tynemouth
Hartlepool
Sunderland
Stockton
Durham
Yarmouth
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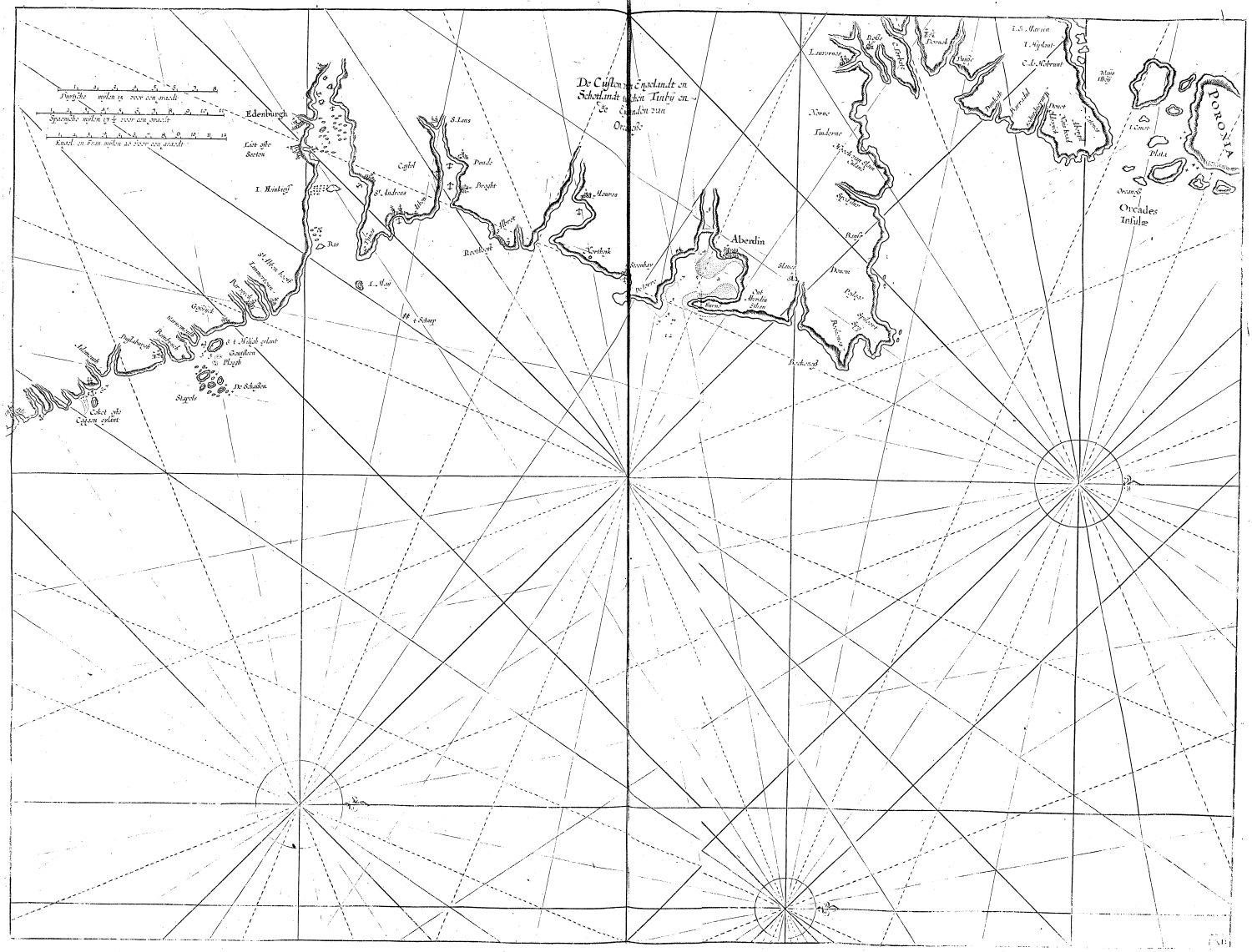
Flamborough
Spurnhead
Grimsby
Lincoln
Boston
Berwick
Yorck


De Cuſten van Engelandt en Schotlandt
Edenburgh
Aberdin
Orcades Insulæ
PORONIA

For to faile without Ellecknock into Bostons deepe', comming (as is beforesaid) to the west land , you must loocke out for the two steeples of Ingoldmills, standing somewhat to the Northwards off Lagerneſſe, bring them one in the other, and then you shall stand about Northnorthweſt from you , keepe them one in the other, and goe on southsoutheast, until that the trees upon the point by west Lagerneſſe , come without the point of Lagerneſſe, and then you runne through betwixt Elleknock and Doghead , (that is a shoald without Elle-knock) when the aforesaid trees come a handſpikes length paſt , or to the eastwards of the point of Lagerneſſe , then goe on Southweſt, and then you runne right into the deepe, betwixt Elleknock and Longſand, and ſo you ſhal finde betwixt Elleknock, and the point of Longſand five fathom depth , being paſt Elleknock, it will be 8, 9, and ten fathom deep.

Ingoldmills

Doghead

If you will faile out of the ſea into Boſton deepe, and not alongſt by the land, as is beforesaid, then bring the foresaid trees a handſpikes length without the point of Lagerneſſe , which ſhall then ſtand from you about W. S. W. faile in ſo right with them, until that the high land within Lagerneſſe or Winſleet begin to come even without the point of Lagerneſſe , which ſhall then be from you ſomewhat more northerly then Weſt, then you are within the point of Longſand. Or elſe there ſtand 3 little houſes on the ſeaſide, about halfe wayes betwixt Lagerneſſe, and Ingoldmils, when they come to be N,W. from you, and thoſe foreſaid trees without the point , then you are alſo within the point of Longſand, goe in then S. W. betwixt Elleknock and Longſand, as beforeſaid. A little paſt Lagernes lieth a ſhould or plate about the middeſt in the fareway , but neareſt Longſand when the trees upon the point to the ſouthwards of Winſleet come in the ſecond valley of the high land within Winſleet, then you are right thwart of this ſhould, edge therefore to one ſide or other, rather towards the ſhould, there is wideſt, keepe boldly the ſounding of the ſhould, and runne ſouth weſt alongſt by it , untill that the ſteeple of Boſton come over the ſteeple of Butterwyke , that is alſo a flat ſteeple , (but ſmaller then that of Boſton) ſtanding in a wood of trees , thwart off it runneth the ſhould ſomewhat of with a point , being paſt it , goe on weſtſouthweſt all alongſt by the foresaid ſhould , untill that the great ſteeple of Boſton come over the ſecond mil, thereby it is good anckoring by the W. ſhoare in 5 fathom at low water. He that commeth there at low water , muſt anckor and ſtay for the tyde untill halfe floud, before that you may not ſail further in from thence, and then you ſhal not alſo find more then 2 fathom upon the ſhouldeſt.

Butterwyke.

From thence the deep lieth in alongſt by the beakons about ſouth to third beakon, being paſt that weſtſouthweſt , and then by little and little, more weſterly and northerly , but run all alongſt by the beakons, leaving them on the ſtarboard ſide , at laſt on north into the River.

Upon the point of the river ſtandeth a houſe , which is a ſheephouſe, before that you come by it , it ſeemeth as if there were no opening, by reaſon that is al even green land , run in by it, all alongſt by the land , being paſt it , the river doth open it ſelf. Being come within the points you muſt run in betwixt two dikes, a league up until you come before the towne, in the river it is a half floud everie where deep enough. When as that you come a little within the houſes of the towne on the larboard ſide, there you muſt let fal your ankor, and ſtay untill that the water begin to fal, then you ſhal have floud enough for to drive to the Kay , there you make faſt with one cable , it doth not begin to ebbe there, before that water be fallen 3 foot.

An eaſt and weſt moone maketh in Boſton deepe the higheſt water, but before the towne an E. and by S. and eaſtſoutheaſt moone. He that commeth from Boſton, and wil faile out at the deep with a high water, let him loock out for the foresaid high land within Lagernes, when that cometh behinde the point off Lagernes, then the may boldly ſet his courſe wether he deſireth to be , either to the eaſtwards , northeaſtwards or northwards , there is no then thing that can hurt him.

From Lagernes to the Hommer it is about 7 leagues , moſt north, betwixt them both, about a league to the ſouthwards of the Hommer lieth a place called Saltfleet haven, a little to the northwards of a ſharpe ſteeple called Wilgrip. Thwart of that foresaid Saltfleet haven , about an Engliſh mile from the ſhoare lieth a bancke or Sandplate, not verie great, which at low water falleth almoſt drye, you muſt runne about without it, and leave lying towards the land from you , but yet for need you may al ſo ſail through within it.

Plate by Saltfleet haven.

For to faile into the Hommer comming from the Northwards , you muſt faile alongſt by the ſhoare , and runne about by the north point, but comming by the pointe you muſt keepe ſomewhat of from the ſhoare in foure or five fathom , for to avoide a little taile, which lieth of from the point, being about it, runne to the litle Iland , which lieth a little by weſt that foreſaid north point.

For to faile into the Hommer.

It comming from the ſouthwards you deſire to faile to the Hommer, then bring the Pawle ſteeple (which is a high ſharp ſteeple ſtanding the north ſide of the Hommer) a little by ſouth the North point off the Hommer , or over that foreſaid little Iland , and faile ſo right in with it , untill that you come by that little Iland , being come by it, leave it on the ſtarboard ſide and run in cloſe by it, for to avoid a great Sand called the Bull , which lieth off from the South ſhoare almoſt unto that little Iland. When that you come within that litle Iland , then bring the two beakons (which ſtand upon that litle Iland) one in the other, keepe them ſo ſtanding , and faile ſo on the weſtwards towards Grimsby , you leave the buye udon the Bull lying then on the larboard ſide , and run along to the Northwards off it : In this faireway it is ſeven and eight fathom deep. You may not come neerer the Bull then in ſixe fathom. Before Grimsby you may ancker in three or foure fathom at low water , it floweth there at leaſt three fathome upon and down, a weſtſouthweſt and eaſtnortheaſt Moone maketh before the Hommer the higheſt water. Within the foresaid Iland at the North point of the Hommer , you may anckor in three or foure fathom: There lye commonly ſhips that are bound out , and tarrie for the wind.

Road before Grimsby.

From Grimsby in alongſt to Hull , the courſe is weſtnorthweſt to the end of the bancke or Ballaſt plate , which you muſt leave lying on the North ſide. On the South ſide lieth alſo a litle plate, there ſtandeth commonly a Beakon upon it , that you muſt leave on the larboard ſide, and run along to the northwards of it, being paſt it , you may run alongſt by the ſouth ſhoare in three fathom. The faireway there is foure, five , and ſixe, and thwart of the foresaid Beakon eight and tenne fathom. When you come to the end of the Bancke , you muſt edge up to the Weſtwards about by the point on the South ſide , but there runneth of a Flat which you muſt avoid. Being a little about that point you ſhall ſee the Towne off Hull , lye before you, there you may anckor before it in ſixe, ſeven, or eight fathom: An eaſt and weſt Moon maketh full ſea before Hull. He that will anckor upon the ballaſt plate, let them bring the Flatſteeple which ſtandeth a little to the northwards or the eaſtwards off Hull to the high point of Paul , and keepe them ſo ſtanding untill that he come the plate, there it is beſt for to ankor upon it.

From the north point of the Hommer called Spurne head to Flambrough-head , the courſe is north and by weſt eight or nine leagues, betwixt them it is ſhowld water of ſix , ſeven, and eight fathom deepe. Flambrough head hath many white ſpots and Chalke hils , eſpecially upon the north ſide towards Fyley. Flambrough hath a Head or Piere. A leagues to the weſtwards of it or the ſouth ſide lieth a little Towne called Burlington , which hath alſo a Piere. You may anckor there in the Baye in 5, or 7 fathom.

Flamborough head.

Burlington.

Three leagues by weſt Flambrough head lieth Fyley , in a rounde bay to the ſouthwards of a point that lieth out , which hath a Pier or Head, where you may lye within it, but if falleth the drie at low water,

Fyley.

Without the head of Fyley lieth a rock under water , called Fyley bridge, betwixt it and the Pier you may well lie a Flote with a ſhip of an hundred lafts, in 5 fathome at low water, and have ſhelter for a northeaſt and eaſtſt winde.

Fyley bridge.

From the point of Fyley to Scharbrough it is northweſt two leagues Scharbrough hath two Pieres or Heads, where you may runne within them at high water from the ſouthwardes , but at low water it falleth there alſo drie. Men com in there from the the ſouthwardes.

Scharbrough.

From Scharbrough the coaſte lieth alongſt by Robbinhoods bay, untill before Whidbye, moſt northweſt, but paſt Whidbye the land falleth in weſtnorthweſt , and by little and little more weſterly unto the Tees.

Robbinhoodsbay. Whidbye.

Robbenshoods bay is a good roade for a ſouthſouthweſt and weſt winde, men lie in 7 or 8 fathome.

Whidby is a tyde-haven , which falleth drie at low water, at the eaſt ſide of the haven runneth of a riffe of rocks , where of you muſt take heede. For to faile in there, you muſt runne in betwixt the two beakons, untill that you come in betwixt the two lands, and anckor there.

From Whidbye to the Teeſe the Coaſt lieth moſt Weſtnorthweſt, and weſt and by north, about ſeven leagues, betwixt both lye Huntley foot and Reddecliffe. Huntley foote is a high hill , lying on the ſea ſide , about four leagues to the eaſtwards of the Tees. Reddecliffe about halfe wayes betwixt Huntleyfoote and the Tees, it is a cliffe of ſuch verie redde earth,

Huntley-foot.

Reddecliffe

that when the sunne doth shine against it, it is to see to like redde cloth: these two are very good markes, for to knowne this coast by.

Close to the southwards of the mouth of the Teese lie three Riffes, which lye about a halfe league eastnortheast into sea, which are verie foule and stonie, and fall drie at low water, upon the north side they are verie flat, so that you may founde about be by them, in 5, 6, and 7 fathome, but on the south side are so steepe, that comming neare them, and sounding in 13 and 14 fathom, you should be upon them, before you should beable to heave the lead the second time.

A league and a halfe to the northwards of the Teese lieth Hartlepole, upon a pointe that lieth out almoft like an Iland. For to goe in there you muft runne into a bight to the southwards of the Towne with in a head, untill you come against the Towne, there you fhall lie drie at low water.

About halfe wayes betwixt Hartlepoole and the Teefe, runneth off alfo a riffe of rocks thwart from the fhore a good waies into fea, come no nearer it, then 5 or 6 fathom. There ftandeth a mill to the northwards of the towne Hartlepoole, if you keepe that to the weft fide of the towne Hartlepole, then you can not faile upon that forefaid riff, but if you bring the forefaid mill a little to the weftwards then the Town, fo that you may plainely fee through betwixt the mil and the Towne, then you fhal not faile to faile upon that riffe.

For to faile into the Teefe comming from the northwards, you muft obferve thefe markes following. A good wayes to the northwards of Hartlepole, a little to the fouthwards of Sonderland, and a litle within the land lye upon the high land, two hommocks clofe one to the other very good to beknown, off fafhion like wornens breafts, called the Paps, keepe thefe two hommocks even without the point of Hartlepole, which fhall then ftand from you northwelt and by north, and faile fo on to the fouthwards, and you fhall fall before the Tees, and fhal not faile to neare the fands that lie out before the mouth of the Tees, and lie of aboute a halfe league into fea.

On both fides, as well on the north fide, as the fouth fide of the Tees ftand two litle white houfes for fireheakons: If you come from the northwardes and get fight off them, then bring firft the two fouthermoft one in the other, which fhall then ftand from you fouth and by eaft, faile right in with them, until that the other two, which ftande on the north fide of the Teefe, com alfo one in the other, them leave them on the fouth fide, & faile in right with them that ftand on the north fide, & fo you fhall run in amidft the channell, there is upon the barre, or fhoulderf, at low water no more then 5 foote, but it floweth there with a common tyde, at leaft 2 fathom up and downe, A S.W. moone maketh there full fea. If when you come from the fouth wards, you will faile into the Teefe, then bring the Innermoft of the two firebeakons (which ftande on the north fide) at leaft a handfpikes length, or the length of a capftone barre, to the N. wards of the other, and runne fo weftwards towards them, until that the two firebeakons on the fouth fide are one in the other, then faile in right with them, as hath beene faide, untill that the two firebeakons on the north fide come one in the other: when you have them one in the other, runne in right with them, untill that you come by the north fhore, and then clofe alongft by it.

When as that you come fo farre in paft the firft fire beakon, to were, that you may fee Hartlepole betwixt the two firebeakons, there you may anckor in three, four or five fathome, or when Hartlepole commeth betwixt the forefaid firebeakons, then go fouthfouthweft, untill that you come by the fouth fhore there it is alfo good anckoring. Further it is pilots water unto Stockton, for there within, the deepes doe fhifte oftentimes, and that in fhorte time, 3, 4, or 5 times in a fummer.

He that will faile in there with northerly windes, and a flood, muft reckon well his tydes, for the flood falleth throug to the fouthwards over the grounds, and fhould there by bee lightlie carried behinde the banck to the fouthwards of the buye which lieth upon the pointe of the banck.

Befides this forefaide channell there runneth yet another channell through the grounds, which lye of from the Northpoint of the Tees. For to faile in there, you muft take marke of the two high lands within the land, to the fouthwardes off the Tees, bring them within a handfpikes length one to the other, or bring the Paps to the weft fide of Hardepoole, then fhall alfo the two high lands come within a handfpikes length neare one to the other, faile in right with them, and fo you fhal runne right into that new channell, alongft through that aforefaide fand, and come againtft the buye (upon the fandes on the fouth fide of the Deepe) againe in the right foreway. When that you get again deeper water, or have the two fire beakons on the north fide one in the other, then goe in towards them, and further as hath been beforefaid.

About 7 leagues to the northwards of the Tees lieth the river of Sonderland, a little to the northwards of the Paps, which are very good markes for to know the land by there abouts. When the Paps are S. S. W. from you, and that you are about an Engliih mile from the land, then you are right before the river of Sonderland, the ground is there abouts indifferent cleane, but fomewhat ftonie, you may anckor there in 4, or 5, and 6 fathom. On both fides, as well on the north pointe, as the fouth pointe of the River it is ftonie. On the north pointe ftandeth a beakon in the water, there you muft runne in, within a little fhippes length alongft by it, being paft that you fhall get te deeper water, to write, 4 fathom and a halfe, and two fathom at low water, but upon the barre remaineth no more then three foote. With a but common spring, and high water there is about 2 fathom and a half, or a little more.

After this forefaid firft depth of 4 fathom, and a halfe or two fathom, you fhall meete againe with a ftonie floore, about three fhips lengths broad, upon it is at high water about eleven or 12 foote deep, according as the tydes fhal runne: being over there, it is again deeper. A little paft that is a narrow place, where a long fhippe fhall fcarce be able to wend, within it, it is wide enough, and very where good anckorground.

From the Tees to Tinmouth the courfe is N. N. W. 8 or 9 leagues. Two leagues to the fouthwards of Tinmouth lyeth the pointe of Sonderland, but clofe to the fouthwards of Tinmouth goeth in the river of Newcaftle. From the point off Tinmouth fhooteth of a ledge of rocks, you muft faile in by it on the ftarboard fide. The markes for to faile into this River are two firetowers or firebeakons, which ftand upon the north fhoare, bring them one in the other, or the innermoft (that is the higheft) a little to the northwardes of the outermoft or loweft, and faile fo right in, alongft by the aforefaid ledge off rocks on the N. fide, and fo you fhall have upon the fhouldeft 2 fathom at halfe fhoal, a S. W. Moone maketh there full Sea. The fouth fhoare is flatte you may lead it in there with the founding pole, for fhips, that goe not deepe, in ten foote at halfe fhoale. When you come within, runne all alongeft by the north fhoare, untill paft the little towne Sheels, edge then over to the other fhoare, untill you come through the crooked reach, there the river lyeth up againe a little to the northwardes, and then to the fouthwards to Hawkes-bill, and about by it to the towne Newcaftle.

Seven or eight leagues to the northwards of Tinmouth lieth the Cocke Iland, betwixt them both about halfe wayes lieth a River called Bly, where the French men doe much faile to fetch coale. From the N. point of this river runneth of a ledge of rocks a great fhot of a caft peece, about foutheaft into the fea, but the fouth fide, and the coaft to the fouthwards of it, is very cleane and fand-ftrand. Upon the fouth point ftand two beakons: If you will faile in there, bring them one in the other, and faile in right with them, and then you can take no hurt off the forefaid ledge or riffe of the northpoint. When that you come by or thwart of the outermoft of the two forefaid beakons, you fhall fee there by it another fmaller beakon, that ftandeth upon a litle ledge of Rocks, that fhooteth of from the fouth point, leave that on the larboardfide, and runne in alongft clofe about northwards of it. The forefaid ledge of Rockes on the northfide remaineth at high water, (a good wayes from the land, and alfo at a fpring-tyde) above water, within it is a bight, there it is good lying for a north or northeaft winde, and there remaineth at low water two fathom depth. In the mouth of the River it is with an ordinary tide and high water about two fathom deep, or fomewhat more, and it floweth there two fathom up and Downe, fo that at low water it falleth almoft altogether dry.

The Cocker Iland, is a very litle Iland, and not high it lyeth about a halfe league from the land, you may come to anckor in it for an eaft, and foutheaft winde, but the winde comming to the northwards of the eaft, maketh there a bad roade, for you muft lye betwixt the Iland and the maine land where you have no fhelter for a north winde. On the fouthfide of the Iland the grounde is foul, and a little to the fouthwards of the Iland, runneth off a foule ledge of rocks from the fhoare, untill thwart or paft the Iland. He that commeth from the fouthwards, muft keepe the Caftle of Bambrough without the Iland, or els he fhould not faile to faile upon the point of that forefaid ledge.

Betwixt that ledge and the Iland it is alfo very narrow, fo that a man ftanding at low water marcke upon the rockes off this ledge, fhould allmoft be able to caft with a ftone unto the Iland. For to faile in there, take heed unto thefe marcks hereafter

after described: there ftandeth a houfe upon the fea fide, which is a falc kettel, and alfo a caftle fomewhat further in within the land, which doth fhewe it felf high enough, bring them one in the other, and then they fhal ftand fomewhat more northerly then weft from you, and runne fo right in with them, and fo you fhall runne in right amidft the channell betwixt both, being come within, edge up behinde the Iland, and anckor there in 5 or 6 fathom.

About this Iland there run alfo many more divers little Rivers, into the land, but they fal moft drie at low water.

Staples. From the Cocket Iland to the Staples, the courfe is northnorthweft eight or nine leagues. The Staples, that are high ftands and rocks right to the eaftwards of Bambrough, lying at leaft three leagues from the land northeaft into fea, a little to the northwards of them lieth the Holie Iland. To the fouth wards or the weftwards of the Holie Iland is a baye, where you may lye landlockt almoft for all windes, againft the Caftle is the beft roade: you may alfo runne in there from the fouthwards, through betwixt the Staples and the maine land.

Holy Iland

Betwixt the Staples and the Holy Iland lye two funcken Rocks, which at low water come verie neere even with the water, the weftermoft towards the Holy Iland, is called the Goldftone, the eaftermoft by the ftaples, is called the Plough. For to avoid them when you will faile through betwixt the ftaples and the Holy Iland, wheter you come from the fouthwards or the northwards, then bring the fteeple of Teuftenbrough over the Caftle of Bambrough, and keepe them fo ftanding, and then you fhall run through betwixt them both, this channell lieth fo through northeaft and fouthweft. From the outermoft end of the ftaples to S. Abbens head, the courfe is northweft 7 or 8 leagues.

Goldftone Plough.

From Holy Iland to S. Abbens head it is northnorthweft 7 or 8 leagues.

S. Abbens head.

To the northwards off S. Abbens-head men doe runne in unto Liet to Edenbrough in Scotland.

S. Abbens head and the Iland the Bas lye eaft and weft four leagues afander. The Iland May and S. Abbens head Northweft and foutheaft foure great leagues, May and Bas lye one from the other fouthweft and by weft and northeaft and by E. three leagues and a halfe. The Bas is a high round Rocke cleane round about, which you may faile alongft by on both fides. Betwixt the rocke and the fouth fhoare it is ten and 12 fathom deepe, but the common fareway is alongft to the northwards of it. Betweene S. Abbens head and the Bas it is moft part a clean Coaft, but without anckor ground. The Iland May is greater then the Bas, and alfo cleane round about, except on the eaft fide. there it is foule.

The Bos

Iland May

From S. Abbens head alongft to the northweft of the Bas, the courfe is weft and by north and weftnorthweft foure leagues, and from by north the Bas to the iland Inchkieth Weft and Weft and by north about five leagues. Betweene the Bas and Inchkieth by the fouth fhoare lye many rockes, litle ilands and foule grounds, where at divers places is road, but are not to be ufed, but by them which are there very well acquainted. Inchkieth and the iland May lie fouthweft and by Weft, and northeaft and by eaft feven great leagues afunder. Inchkieth is is fomewhat a long fmall iland, a league to the northwards off it lieth an out point on the north Coaft, called Kingorneffe, before it and about it lye fome litle Rocks under Water, but a litle to the eaftwards off the point is good anckor ground and road for Weftерly Winds. Betweene that point and the Iland May, or the point of Fifnes on the north fhoare lye divers litle havens, where of fome of them doe alfo yeeld out coales, but are litle or notting ufed by the Hollanders. On both fides off Inchkieth is good ground, and good lying as wel for Weftерly as for Eafterly Winds.

Inchkieth

Kingorneffe.

From Inchkieth to Liet it is foutheaft a league. Before Liet about halfe an Engliih mile from the fhoare lieth a Rocke upon which ftandeth a maft (with a croffe or fome other thing of wood upon the top of it) for a beakon. At high water the fea floweth over it, and low Water it falleth dry. With a fpring tyde at low Water men may goe on foot to it. From the eaft fide of that Rocke lieth of a riffe almoft unto Inchkieth. Yoy may alfo run through to the fouthwards of Inchkieth betwixt that foreſaid riffe and the fouth fhoare, but it is not to bedone, but by them which are there exceding well acquainted: There is altogether full of Rockes and foule ground. When as you fayle into the northwards of Inchkieth you muft leave the foreſaid Maft on the larboard fide, and run about to the northwards off it, and then towards the fouth fhoare, and anckor about halfe an Engliih mile by Weft Liet, and alfo halfe an Engliih mile from the fhoare, in fixe, feven or eight fathom. Liet the haven Edenbrough, at tyde haven which falleth dry at low Water.

Liet.

Cockers Iland.

From Liet to Queenes Ferrie there lye on both fides many rockes, fome above and fome under water. In the narrow before Queenes Ferrie lieth a litle iland called Inchgarve which you muft runne alongft to the northwards of, on the fouth fide it is with a ftone bancke (where men may goe over at low Water) faft to the maine land, alongft to the northwards of it, it is cleane and deepe. Within that litle iland lye Caryn and other places more where men doe lade Coales.

Queenes Ferrie.

Under the eaft fide of the point to the northwardes of Queenes Ferrie is good road in 2, 3, or 4 fathom, according as you lye farre from the fhoare.

A league north from the iland May lieth the point of Fifnes, lying from S. Abbens head northweft and by north 7 great leagues. From thence to Dondee it is northnorthweft five leagues. Dondee is a good haven which goeth in betwixt a high Land, being within men doe anckor before the Towne. Farther in upon the River lieth another Towne called S. Iohns, which you may goe up to at high Water.

Fifnes.

Dondee.

S. Iohns.

Betweene the point of Fifnes and Dondee lieth alfo the baye of S. Andrewes, there is all over good anckor ground. Before great leagues N. and by E. from the point of Fifnes, and N.E. from S Andrewes lieth a great rocke called the Inchkap. which the Sea floweth over at high Water, and at low water it falleth fo dry, that the Fifhermen goe upon it.

S. Andrewes.

Inchkap.

Seven leagues to the northwards off Dondee lieth Monroffe, a good haven. Firſt you muſt faile in there amidſt the channell, and then edge up to the northwards and anckor before the Towne.

Monroffe

Betwixt Dondee and Monroffe lieth an out point called Red head, about a great league to the fouthwards of Monroffe. There ſtandeth a high tower upon the land called Albrot.

Redhead.

From Monroffe to Stone Baye or De Torre, the courſe is N. Stonebaye E. and by N. 4 leagues. This is a deepe bay and a good Haven for theſe that are bound to the fouthwards, where men may lie landlockt with many Ships.

Three leagues to the N. wards of it lieth Aberdyn: In this Haven mouth it is three fathom deep. The weſtpoint is fomewhat foule, therefore you muſt run in by the eaſtland, until you come within the haven, and anckor before the Towne in 4 or 5 fathom. Up to the N. wards is a great Bay, but is ſhould on both ſides. There goeth through a litle Creeke towards old Aberdyn, which is an old ruinous towne.

Aberdyn

From Aberdyn to Bockenes the courſe is northnortheaſt twelve or thirteen leagues. Betwixt them both lieth a tydehaven. Bockenes is a high Hil land lieth upon the foth ſide of the point. To the northwards of Bockenes lyeth a Bay as a Haven called Spy or Spilaert. From thence the land lieth Spy. in Weſt and Weſtſouthweſt unto the Haven of Roſſe or Luvernes.

Bockenes.

To the Northwards of Roſſe lieth an out point called Cape Terbate, right in the buttome of the Baye betwixt Catnes and Boockenes, diſtant from Boockenes about 19 or 20 leagues. In this baye manie havens and founds, which are deep enough for to come into with great ſhips. It is from thence to Catanes 26 leagues N.E. and by N. Catanes lyeth from Bockenes N. W. and N.W. and by N. 21 for 22, 20 leagues. From Bockenes unto the outermoſt Orckanes it is N. and N. and by W. 32 or 33 leagues.

C. Terbat.

The Orckeneys are one and thirtie ilands in number, firſt Waters or Elhoy, which lieth next to Scotland, five leagues about the point. About N.N. E. of from the point of Catenes lye two litle iland Pits and Pichlantsſcare there you may run through to the weſtwards betwixt Ilhoey and Scotland.

To the northwards off them lyeth an iland called Heynda, with an other Iland called Platto, to the northwards off Platta lieth Mayland or Ponoma. On the northſide of this greate Iland are all the havens where the ſhips come to.

Upon the eaſtſide of this great iland lieth an other iland called Kabunſa, to the northwards of it lyeth an other iland at the northeaſt point of the greate Iland, you may alſo runne through there towards Papeweſter, and leave Sand a lye on the ſtarboard ſide.

Cloſe to Papeweſter lieth Fara, to the ſouthwards of it is Sirza. To the eaſtwards of Sirza and Fara lye two ilands, in the middeſt of all theſe ilands, called Eeda and Chapuoza.

Sanda lieth to the northwards of all theſe ilands, but Papa and Stronza lye to the ſouthwards of Sanda.

To the eaſtwards of Stronſa lyeth an iland called Cuiſtella, that is the eaſtermoſt iland off all, the northermoſt is called Ronaize or northernanſe.

Eleven or twelve leagues northweſt from the great iland lie two rocks, the one under water and the other above water, he that commeth from the weſtwards, muſt take heede of them.

Of the Depts and shoulder about these places, and in what Depts men may see the land.

Thwart of Winterton and Cromer, seven or eight leagues from land, it is 18 and nintеene fathom deepe, and there you may see the land. Northeast and northeast and by north from Cromer lyeth a bancke, whereupon remaineth at halfe flood no more water, then 4 fathom, from thence you may see the land indifferent well.

North and by east from Blackeney lyeth a bancke, whereupon remaineth at halfe flood no more water then five fathom. In eighteene fathom thereabouts you may see the land. From thence to the point of Chappell it all should.

About northnorthwest and north and by west from Winterton-sand lieth the bancke before Crommer 5 leagues without the coast.

To the northwardes of the Hommer off Hull, you may see the land in 25 fathom.

Flambrough-head men may see in five and thirtie fathome.

Scharbrough men may see from below in 45 fathom.

Of the tydes and courses of the streames, about these foresayd places.

Before Cromer a southeast moone maketh high water

At Blakeney, Wells, Bornum and Lyn, an east and west moone.

Before the Hommer of Hull an eastnortheast and w.s.w. moone.

From Blackeney to Flambrough-head, the floude falleth southeast and the ebbe northwest.

At Flambrough and Fyley, in the Peer a westsouthwest moone maketh full Sea.

At Scharbrough and Robbinhoods-baye a southwest and N.E. moone.

In the Tees and at Hartlepoole also a southwest and northeast moone.

Before the River of Newcastle a southwest and northeast moone maketh also the highest water.

Thwart of Flambrough-head, Scharbrough, the Teese, and also thwart of the river of Newcastle, the floud falleth southeast, and the ebbe northwest.

To the northwards of the Tees, the floude falleth southsoutheast alongst the land, and from the Tees to Scharbrough southeast and by east.

On these coast betwixt Tinmouth and S. Abbenshead a southwest and north east moone maketh high water.

At Liet in the Haven a southwest and by west moone maketh full sea.

The floud falleth alongst these coastes southsoutheast and the ebbe northnorthwest.

At Orcaneese and Bockenes a southwest and northeast moon maketh high water.

The floudes come about from behind Scotland from the westwards through betwixt Fayrehill and Orcaneese, and make thereabout full sea with a southwest and northeast moon.

From Boeckeneese, the floud falleth south alongst the coast towards Liet, and the ebbe north to the contrarie.

In this fareway it is deep 40, 50, and 60 fathom, in 45, and 51 fathome, you may see the land. In this fareway in the sommer the first Herrings are caught.

How these lands doe lye one from the other, and from other lands.

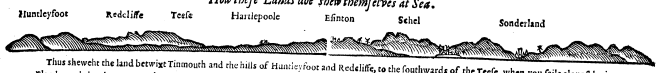
From Cromer to Blackeney westnorthwest —— 3 or 4 leagues
From blackeney to bornum through within the sand west —— 7 leagues
From bornum to Chappel westsouthwest —— 2 leagues
From Chappel to Ellekenock, or the north point of boltondeep, the coast is northwest and by north —— 5 leagues
From hence to the north point of Cromer n. and n. and by west —— 7 leagues

From the north point of the Hommer to Flambrough-head n. n. w. 9 leagues
From the point of Crommer of Shield to the Teffell east —— 40 or 42 leagues
From the north point of the Crommer to the Teffell east and by south and east southeast —— 60 leagues
From Flambrough-head to Feley northwest —— 3 leagues
From Fyley to Scharbrough northwest —— 2 leagues
From Scharbrough to Widbye northwest and by west —— 5 leagues
From Widbye to the Teefe, the coast is first westhartherwest and afterwards w. and by north —— 7 leagues
From the Teefe to Tynmouth northnorthwest —— 8 or 9 leagues
From Wisbuye to Tinmouth, the coast is northwest and S. E. —— 16 leagues
From to Cocker Iland northnorthwest —— 8 or 9 leagues
From Tinmouth to Stapels north and by west —— 16 leagues
From Stapels to barwyke westnorthwest —— 3 leagues
From barwyke to S. Abbens-head northnorthwest —— 4 leagues
From the Stapels to S. Abbens-head northwest —— 8 or 9 leagues
From S. Abbenshead to the bas —— 4 leagues
From the bas to Inckeeth west and by north —— 5 leagues
From S. Abbenshead to the Iland bay northwest —— 4 great leagues
From S. Abbenshead to Fifanes northwest and by north —— 5 great leagues
From fifanes to Doonde northnorthwest —— 5 leagues
From Tinmouth to Schuytenes northeast —— 140 leagues
From Tinmouth to the Naze northeast and by east easterlye —— 103 leagues
From Tinmouth to the Seaue eathnortheast —— 136 leagues
From Tinmouth to Holyland east and by south easterlye —— 106 leagues
From Fifanes to Stone bay north and by east —— 16 leagues
From Redhead to Monros northwest —— 4 leagues
From Monros to Stone bay northeast and by north —— 4 leagues
From Stone bay to boecknes northnortheast somwhat northerly —— 16 leagues
From Aberdine to boeckenes northeast —— 22 leagues
From boeckenes to Phyloort or Spyloort northnortheast —— 3 leagues
From Phyloort to the point of Eglyn west —— 10 leagues
From the point of Eglyn to the haven of Rosse or Luvernes west and by south, somewhat southerly —— 7 leagues
From cape de Terbare to Catenes northeast and by north —— 16 leagues
From boeckenes to Ilhoy westnorthwest —— 5 leagues
From boeckenes to Gatenes northwest and by north —— 21 leagues
From boeckenes to the Orcaneys north and by west —— 26 leagues
From boeckenes to Hanglip, or the south end of Hitland n.and by e. —— 55 leagues
From boeckenes to Schuytenes east and by north —— 69 leagues
From boeckenes to the Naze east somewhat southerly —— 88 or 90 leagues
From boeckenes to boevenbergen in Iutland east and by south —— 104 leagues
From boeckenes to Holyland southeast and by east easterlye —— 123 leagues
From boeckenes to the Teffel southeast southerly —— 125 leagues
From boeckenes to the Holmes before Yarmouth southsoutheast somewhat easterlye —— 98 leagues
From Aberdine to the Holmes before Yarmouth s. e. and by s. —— 93 leagues

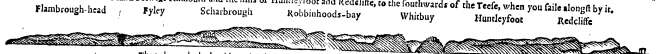
Heights.

Yarmouth lyeth in —— 52 degrees 52 minuten
The north point of the hommer of hull in —— 53 degrees 20 minuten
Flambrough-head lyeth in —— 54 degrees 5 minuten
Scharbrough in —— 54 degrees 12 minuten
Tinmouth or the River of Newcastle in —— 55 degrees
Tinmouth or the River of Newcastle lyeth in the height of —— 55 degrees
S. Abbens-head in scotland in —— 56 degrees 12 minuten
Boeckenes lyeth in the height of —— 57 degrees 50 minuten
Catenes in —— 58 degrees 32 minuten
The greatest or the outermost Iland of the Orckeneys in —— 59 degrees 8 minuten

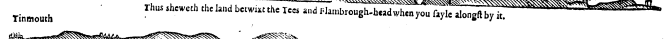
How these Lands doe shew themselves at Sea.



Thus sheweht the land betwixt Tinmouth and the hills of Huntleyfoot and Redcliffe, to the southwards of the Teese, when you saile alongst by it.



Thus sheweth the land betwixt the Tees and Flambrough-head when you fayle alongst by it.



Thus sheweth the land betwixt Tinmouth and Cocket Iland

Thus sheweth Boeckenes when you saile alongst by it.

In this form sheweth the land Catenes, when you saile alongst by it.

Thus sheweth the northeast point of Orkenes when you saile alongst by it.

Thus sheweth the land of Scotland to the northwards Aberdyne, when you fayle alongst by it two leagues from the land.

The eleventh demonstration,

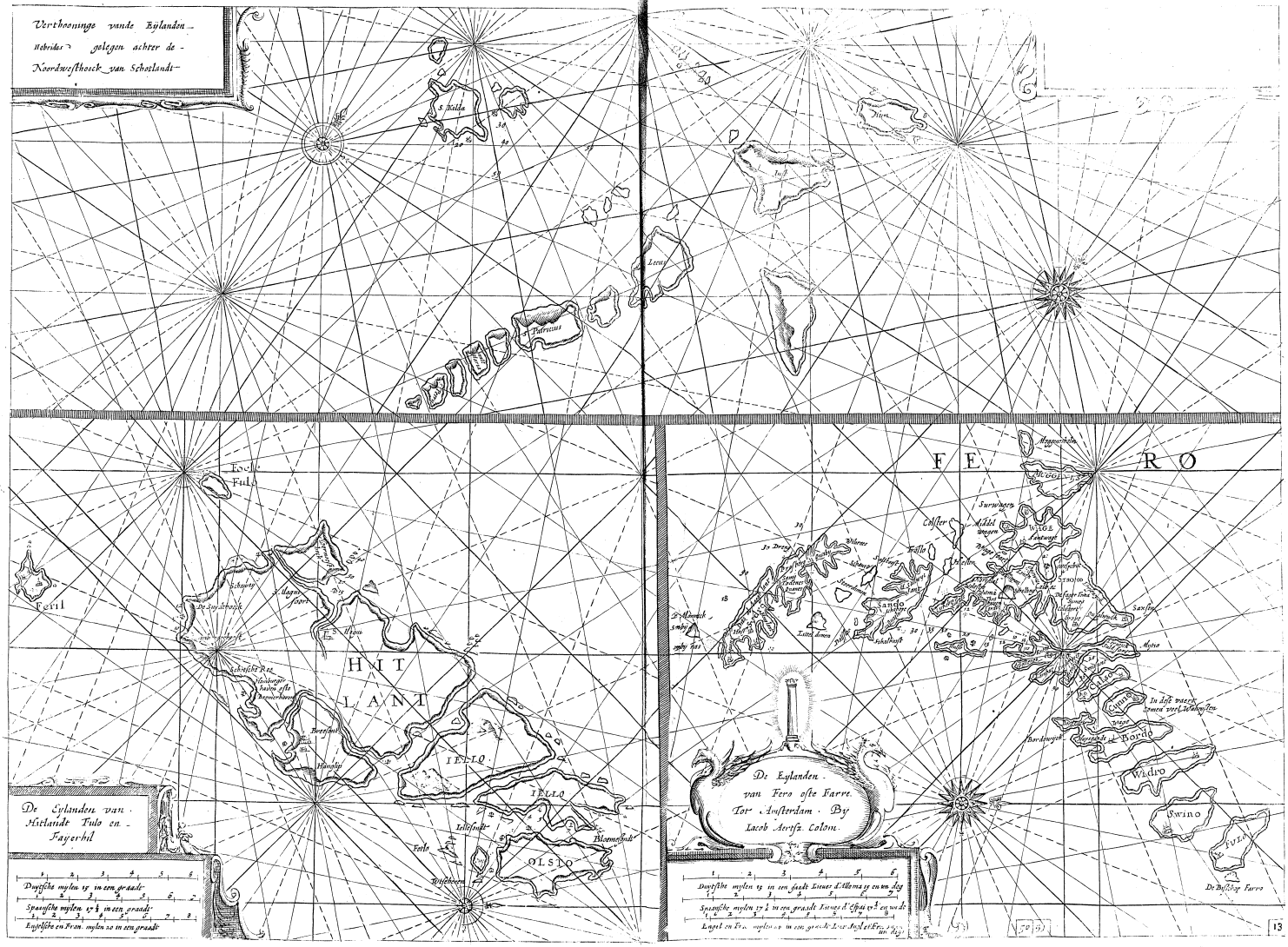
Where in are seth forth the coast of Fayer-hill, Hitland, and the Ilands thereabout, as also the Ilands off Fero and some Ilands behind the northwest corner off Scotland.

Fairhill: THe Iland Fairhill lyeth from the east point off the Orcanais northeast, and from Boeckeneſſe North and by west about 3 7leagues.

On the west side off Fairhill is at some places foule ground, but upon the southeast side is good anckerground, there you may anckor every where.

Fulo lieth from Fairehill N.W. and by north 10 leagues, betwixt them both lieth the southermost point off Hitland, lying from Fairehill nornorthеast 7 or 8 leagues, and from Fulo east and by south, 4 leagues. Fulo.

The southwest coast of Hitland, (to were from the southermost point off the northwest point) lyeth northwest and by north


Verthooninge vande Eylanden
Hebrides gelegen achter de
Noordwesthoeck van Schotlandt
S. Kilda
Lewis
S. Patricius
Yrlandt
Eccla
Fula
Foirl
Schotten
Schotsche Rot
Berenfuel
Hunsby
HIT
LANT
IELLO
IELLO
Lillefuster
Foula
Bloemenhoek
OLSTO
Pettikeern
De Eylanden van
Hetlandt Fulo en
Fayerhil
Duytsche mylen 15 in een graedt
Spaensche mylen 17 ½ in een graedt
Engelsche en Fran. mylen 20 in een graedt
FE RØ
Mygarstadt
Surnaberg
Middel
wagen
Oosterwagen
Oosterster
Sandoe
Sandoe
Mytho
Stora
Pordo
Widro
Swino
De Biscop Farro
De Eylanden
van Fero ofte Farre
Tot Amsterdam By
Iacob Aertsz. Colom.
Duytsche mylen 15 in een graedt Leuwe d'Allema 15 in een dag
Spaensche mylen 17 ½ in een graedt Leuwe d'Espa 17 ½ in een dt
Engel en Fra. mylen 20 in een graedt Leuw Angl et Fr. in een dag

north seven or eight leagues. On the same southwest side, over against the Iland Fulo lieth a Sand-bay, where men may anckor, but on the east side of this Bay, it is somewhat foule. From that northwest or west point off to the North end, the land of Hitland lieth Northeast and Southwest seventeene or eighteene leagues.

S. Magnus. Two leagues to the northwards off the foresaid West point lieth the Haven of S. Magnus, which is a broad Sound, within it is good anckor ground in 16 or 17 fathom depth, according as you shall be farre within the lands. On the North side lieth a high rocke, where you must run in to the southwards of. And on the southside lieth 2 or 3 rocks, which you must leave on the starboard side, when you saile in there.

Even to the eastwards about the S. point of Hitland, lieth a faire Sand-bay, where you may anckor in 12, or 13 fathom, from

Hanglip. thence to Hanglip, the cours is n.e. somwhat easterly 9 or 10 le.

Hanglip haven. Betwixt Hanglip and the S. point lieth an Iland, which you may saile about on both sides, wt hin it, lieth Hambrough haven, or the Scottish haven which is a lade place for the Hamburgers and Scots. This haven is also called Bremer haven. There lieth also a high steepe point to the southwards of Hanglip, to the S.

Broad-sound. wards of it men doe runne into Broad sound, the chiefest haven of all Hitland, which is deepe and hath cleane ground, there men doe lye landlockt for all winds.

From the Broadsound lieth a found in alongst to the n.wards, through the land, which cometh out againe into the Sound to the N.wards, and so maketh an Iland of the land whereupon the high hil Hanglip lieth. When as you wil saile in there from the N.wards, that is to the n.wards of Hanglip, you must run in nearest by the S. shoare, and edge to it betimes. In this channell betwixt both lands lye 2 Ilands or rocks, the greatest lieth neareit the N. shoare, & the smalleit neareit the S. shoare, betwixt them both lieth also a suncken rocke, which at low water is uncovered, and at high water you may know it by the breaking upon it. When as you will saile in here, you must leave the foresaid greatest rocke, with the suncken rock, on the starboardside, and the smalleit rock on the larboardside, there is upon the shoulderst 3 fathom and a halfe water.

Within this haven lye also 2 havens at the N. point, which lye into the land, where is good lying.

When as you wil saile from this foresaid haven throug within into Broadsound, you shall meet, fearce halfe waves with a rock, from which lieth of a riffe towards the West shoare thwart of it you must runne close alongst by the west shoare, for to avoid that riffe.

To the N. wards of Hanglip, the land of Hitland lieth n. and n. & by east, & N.N.E. at last N. and at some places, you may saile in through Hitland, especially to the N. wards of Hanglip, where a faire broad found lieth N. W. through, there is good anckor ground to finde at some places, for these that are there acquainted. From Hanglip to the N. E. point of Hitland, the

Outscares course is N. N. E. 10 leagues, there lye some outrocks called the Outschares. From thence alongst to the N. point of Hitland, the course is N. about 4 leagues.

Bloom-sound. A little about east point goeth in a faire haven, called Bloomsound, lying in S.w. On the w. side lieth a long rock, you must saile into the eastwards of it, & anckor a little within the haven, it is there within all cleane sand ground, and good lying Bloomsound lieth in first (as hath been said) S, S.W. afterwards S. and S. and by E. on both sides is good anckor ground, there you may saile altogether through, and come out againe through Ielleground into sea, about the Iland Fero.

Names off the Ilands of Fero. The greateit and chiefest Ilands of Fero are 12 in number, as Suydro, Sando, Moggenes, Wage, Stromo, Ostro, Calso, Cuno, Bordo, Wydro, Swyno and Fulo.

The little Ilands of Fero are ten, as Littledymen, Stoerdymen, Schuyso, Dalsfles, Hefden, Trallo, Colster, Moggensholm the Monck, and the Bishop. Besides these there are yet some rocks and little Ilands, to 7 or 8 in number.

Suydro. The southermost great Iland called Suydro, lieth most S. E. and N.W. about 7 or 8 leagues. At the S. E. end of this Iland

Monck Sumby. lieth a high rock, called the Monck, or Sambie, after the name of the first or southermost haven in Suydro. Betwixt the Monck and the S.E. end of the Iland Suydro, is a race or Well, which men muit avoid especially with spring tydes.

Upon the W. side of the Iland Suydro are no havens for to save any shippes, but it is altogether high steepe land. On the northside are manie havens, where men may saile into and save ships, as Sommersound or Heft, Hofwyke, Vrobie, Quaelbie or Rane, all broad founds or havens, a countrie man or Pilot can bring you in there every where to your desire.

Moggenes holm From the Northwest end Suydro to Moggensholme, the westermost and outermost Iland of Fero, the course is N. W. and by north, and northnorthwest about 8 or 9 leagues.

Moggenes wage. At the east end of Moggensholme lieth Moggenes, to the eastwards of it lieth the Iland Wage, and to the eastwards off Wage goeth in a faire Sound from the southwards of from the Iland Sando about Hesten and the Iland Colster, for you may run in about these Ilands on both sides, & leave the great Iland Stromo & the east side, and so come into Wage. In the middest of the sound of Wage, goeth up a haven to the eastwards in to the great Iland Stromo, there in you may anckor in 10 or 12 fathom, but the Sound is at least 20 fathom deep.

Moggenes and the northeast end of Fero lie eathnortheast or a little more northerlye, and westsouthwest about 15 leagues asunder. Betwixt them both lye tenne Ilands, and betwixt each Iland, is a faire broade and deep found whereof the fourth off from Moggenes is called Somsound. All these Sounds lye most northnorthwest and southsoutheast through the land, and upon all these Ilands stand Churches, except upon Ostra, which never the lesse is a great Iland. Somsound

Schalhead. From the southeast end of Suydro to Schalhead, or the south east end of the Iland Sando, the course is north and by w. about 5 leagues. Betwixt Suydro and Sando lye the little Ilands, little Dymen, Stoer Dymen, Schavo and Dalsfles. little Dymen Stoer Dymen.

From Schalhead untill within the Iland Mulso (lying before Stromo) the course is n.and by w. 4 leagues, there you may every where ankor, where you will in 20, 13, or 14 fathom. If any man comming in out of the sea, desireth to see a good road or haven under the Ilands of Fero, he shal keepe that middlemost great Iland Stromo northwest and N. W, and by W. from him, and then hee shall see upon the middest of the Iland Stromo a high steepe hill called Schellinck, which he must saile right in with, and so he shall meete with that foresaid Iland Mulso a low Iland, which you may saile about on both sides, but is best for to run in there at the south end, under this Iland is all over good anckor ground. Right over against this Iland, on the great Iladd, lieth Torshaven, the chiefest haven of Fero, where al the trade of Merchandize is. Torshaven

From Torshaven or the Iland Mulso to the n. e. end of Fero the course is n.e. and n.e. and by east about 12 or 13 leagues, betwixt them both lye 7 Ilands, & betwixt each Iland (as hath been said) goeth a broad Sound thorow the land, lying through about n.w., n.w and by north, and n.n.w. The n. end of Fero is about 4 leagues broad, and lieth n.w. and s.e. and is calleo Fulo, thwart of it lieth the Bishop. Fulo.

He that desired to saile of from Mulso in to Somsounst, let hem goe on n.e. & by n. 3 leagues, unto the point of Bordenes, then up n.w. of from Bordenes, & then he shal espie a Church upon the Iland Calso, which he must leave on the starboardside, and goe in along w.n. w: untill he come in to the Bight of the Iland Ostro, and ankor there in 17 or 18 fathom. the Bishop.

These Ilands of Fero lye in a triangle, it is from the southeast end of Suydro to Fulo, or the N. end of Fero n.n.e. and s.s. w. 21 leagues asunder.

From Schotland westwards and to the northwards of Ireland, lye many Ilands, whereof we shall here describe some, with so much perfectnes, as thereof is yet knowne.

Names off the Ilands. The names of the principall Ilands lying there these: Areu, Ila, Iona, Mulla, Bragedull, Hun, Lewis, S. Patricius, S. Maria, S. Colane, S. Petous, Epth, and S. Kilda, these are the greateit. There are yet some small Ilands: as Rona, Ghent, Trauta, Fladde, Grand Melul, Petit Melul, Stalpan, Cannay, Rum, Egghe, Mule, Cutte, Camdenbrough, Gronsay, S. Karbo, Lufmont, Swynoy, Machare, Gegay, Caray, and Navarsay. Al these Ilands doe lye and belong under Schotland, and are those which by the Cosmographers are called Insulæ Hebrides.

Barre or Rona. The Iland Barre or Rona is the northermost Iland lying behinde Scotland, and lieth from Fulo about westsouthwest 37 or 38 leagues, it lieth by two other little Ilands about a greate league one from the other.

The Ilands of Lewis lye from Rona southwest distant 16, or 17 leagues, and from the north edd of Lewis to S. Kilda, it is S.W. and by W. 16 leagues.

On the east side of S. Kilda is a good roade for a w. and. n.w. winde. This Iland lyeth by the other little Ilands, whereof the two are not very great, upon that which lieth to the westwards, you may see some houses stand, and those two little Ilands lye 10 leagues to the westwards, of the great Iland of Lewis. Upon the coast of Lewis lye also two rowes of great rocks, like as if they where little Ilands, lying one from the other S. and. N. somewhat easterlye about 7 or 8 leagues.

The southermost lye by 3 little Ilands, but the northermost lye by 8 small little Ilands or rocks.

The Iland of Lewis is devided into many parts, the which men may saile throug at many & divers places, Lewis with the Iland

Iland belonging to it lye S.S.W. and S. & by W. about 29 leag.

But on the east side goeth a broade Sound through of 5 or 6 leagues. Men sail in close by the Iland of Lewis, about south-southwest untill past the Iland Cheur.

From thence the Sound lieth through betwixt the great Iland Bragadull and Levis south and south and by west towards the west end of Lewis, called the Eghts, then you must leave Mulla & Ila, with divers many other Ilands on the larboardside.

Jona, Ila, Mulla and Bragadul are foure of the great. It Ilands, which are lying on the west coast of Scotland, and lye close by the main land, but there are many havens and Sounds, so that there you may saile in and about them every where.

At the northwest point of Ireland lye allo some Ilands, which you may saile through and round about them all.

Betwixt Rona and Orkaneys lie allo some Ilands which also you may saile through betwixt and round about.

He that falleth with these Ilands must be very carefull and circumspect, for the most part of them are inhabited by wild and savage people.

In Lewis and the Ilands there about a southwest and northeast moone maketh the highest water, & likewise also without the north point of Scotland.

Of the Tydes and courses of the streames.

In Hitland within the havens and sound it is southwest, and northnortheast moon maketh full sea. The flood runneth there to the eastwards, and the ebbe to the westwards, especially at the south end and north end of Hitland, and so fall thwarte through the Sounds and havens.

In the Ilands of Fero a north and south moon maketh the highest water.

Under the Ilands of Fero goeth very hard tydes, with great turnings, the flood sommeth there out of the west and westnorthwest, and the ebbe out of the east and eastsoutheast and fall so alongst through the Ilands, there you must reckon your tydes thereafter, when you will saile from the one Iland to the other, there are 2 weis or Maelstraames, the one at the fourth end of Suyder, and the other 2 league within Schallhead at Quarlnes.

Although the tydes doe run so strong through these Ilands yet nevertheles it floweth not there foure foot up and downe.

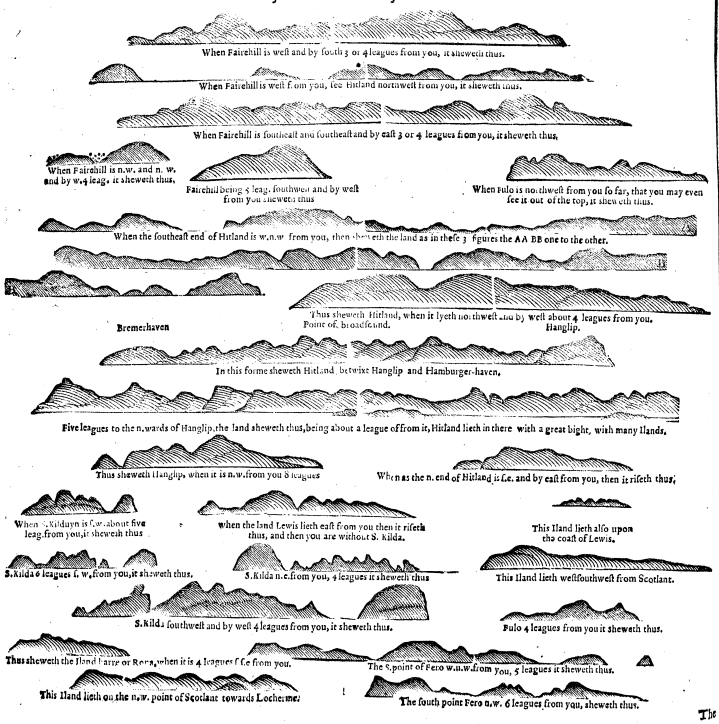
How these lands doe lye one from the other, and from other lands.

From Fairehill to the northeast point of Orcaneys s.w.	9 or 10 leagues
From Fairehill to the south end of Hitland southsouthwest and fourth and by west	7 or 8 leagues
From the south end of Hitland to the Iland Rona W.S.W.	90 leagues
From the north end of Hitland to the rocks off Kokol w.s.w.	127 or 128 leag.
From the south end of Hitland to Fero w.n.w. and n.w. and by w.	61 leagues
From the n. end of Hitland to the Iland of Fero w. and w. and by n.	58 leagues
From Hitland to the east point of Iland, the course is northwest, and by west about	130 leagues
From the north end of Hitland to Grip N.E. and by east	121 leagues
From Hitland to Stadt eathnorthest	69 leagues
From Fero to Rona, the course is S. and by E.	41 or 42 leagues
From the south end of Fero to Kokol l.w. weiterlye	85 leagues
From Kona to Lewis, the course is l.w.	30 leagues
From the north end of Lewis to S. Kilda s.w	16 leagues
From the south end of Lewis to the northwest point of Ireland, the course is fourthnorthwest about	27 leagues
From S. Kilda to the north end of Hitland n.e. and by east	39 leagues

Of the heights of these lands.

The south end of Hitland lyeth in	59 degrees 48 minuten
The north end of Hitland lyeth in	61 degrees 45 minuten
The south end of Fero lyeth in	61 degrees 15 minuten
The north end in	62 degrees 20 minuten
The Ilands of Rona lyeth in	58 degrees 46 minuten
The north end of Lewis lyeth in	58 degrees 18 minuten
The Rock Kokol lyeth in	58 degrees 20 minuten
The northwest point of Scotland lyeth in	58 degrees 30 minuten

How these Lands doe shew themselves at Sea.



The

The first part

THE SECOND BOOK

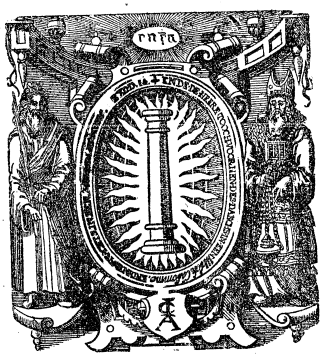
OF THE

FIERIE-SEA-COLVMNE,

WHEREIN

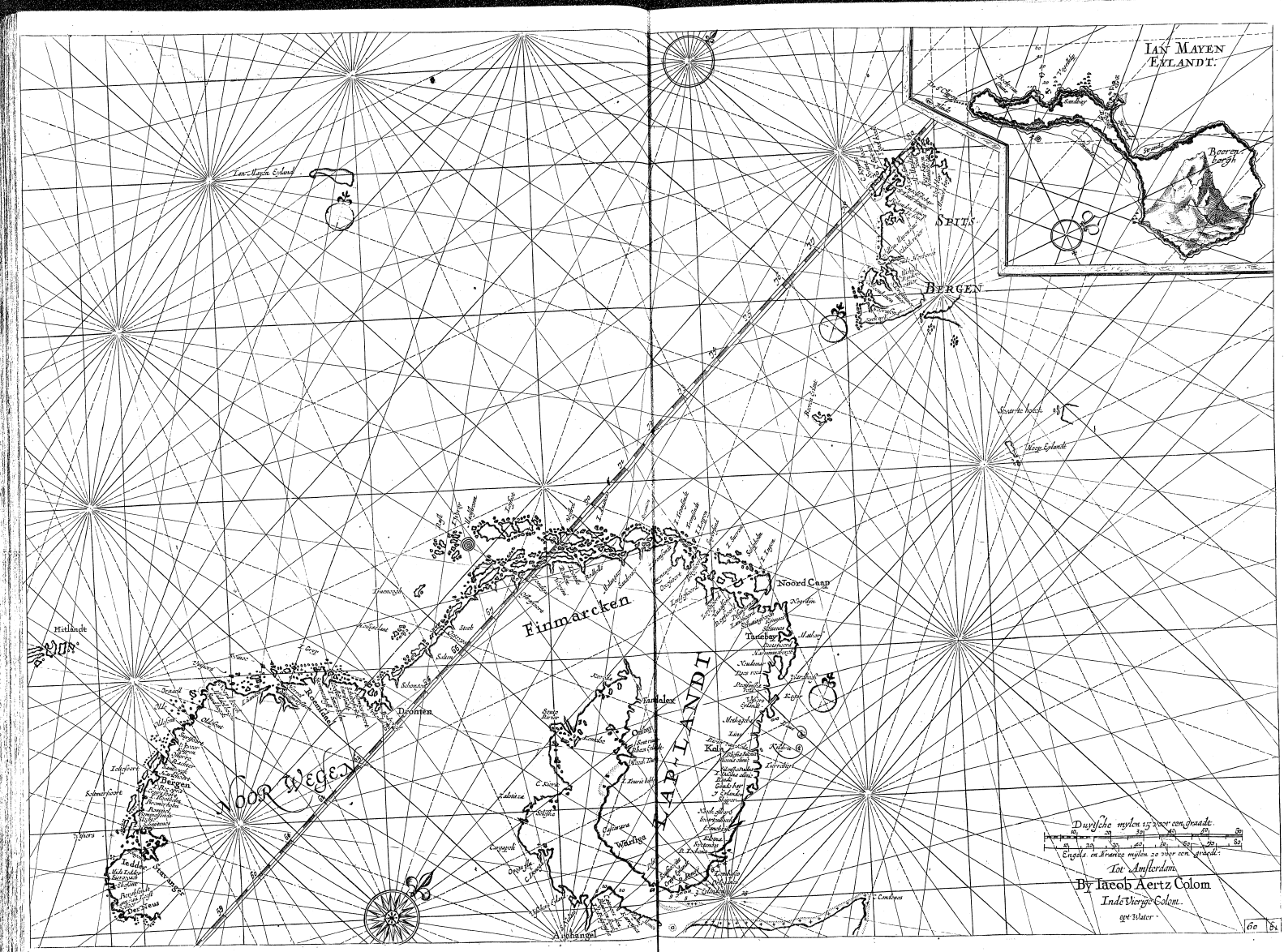
Is contained the Description, of the Seacoasts, of Norwey, Finmark, and Lapland, and therewith the vvhole vvhite Sea, from Drontem to Nova Zembla.

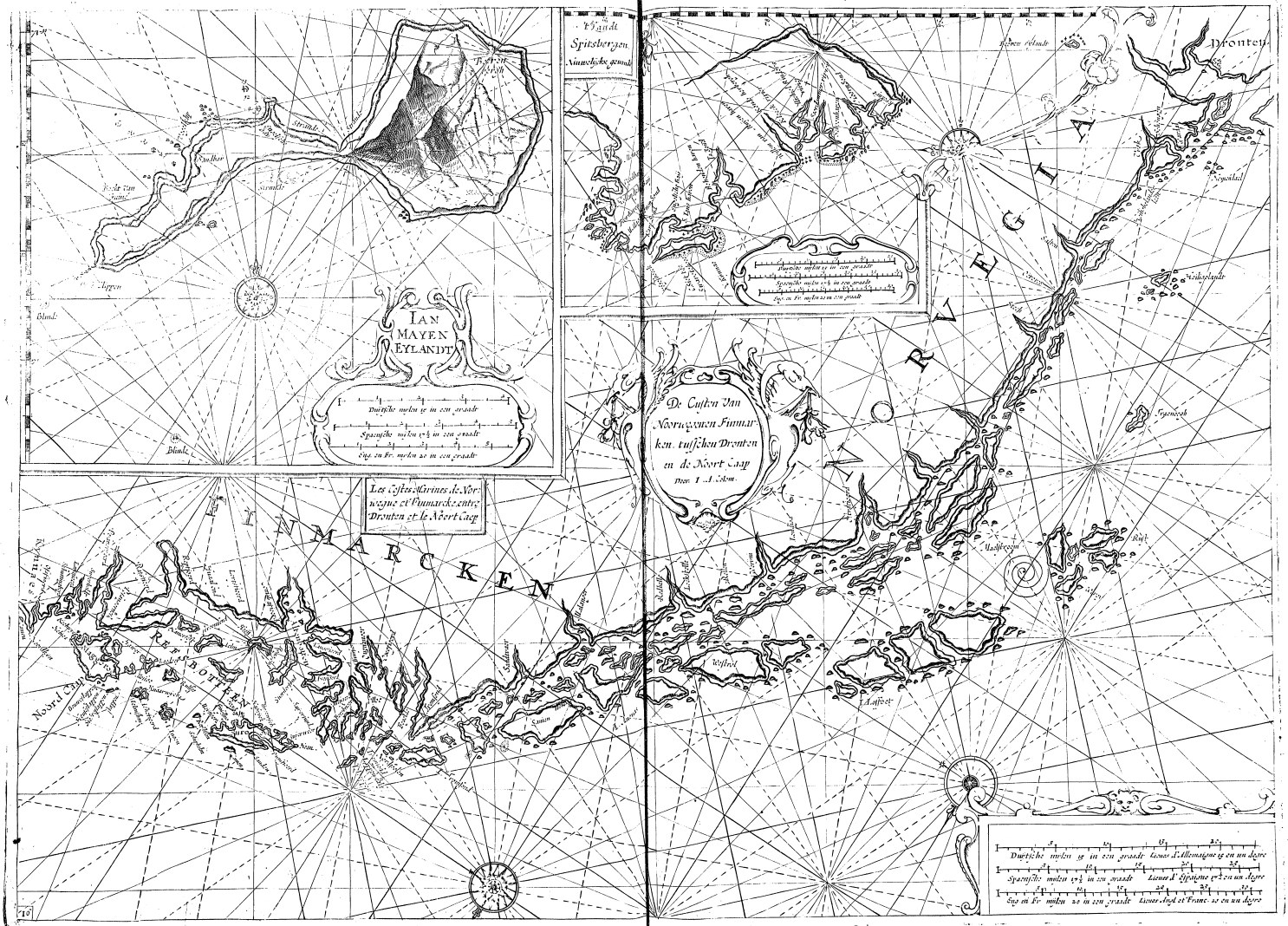
VVith priviledge of the High and Mighty Lords, the States Generall, for twelve yeares.



Printed at Amsterdam,

By Iacob Columne, on the water, in the Fierie Columne,


Ian Mayen Eylandt.
Beeren Eylandt
Beeren Hoek
Tordale
Tordahy
Groote
Beeren Logh
SPITS
BERGEN
Noort hoeck
Hoge Eylandt
Finmarcken
Noord Caep
Tanebey
Malaup
Kolm
Kolm-Gorod
Kandalex
Drontem
NOOR WEGEN
LAPPLANDT
Hitlandt
Tessefort
Bergen
Solmesfoort
Tydors
Iedder Steenwerp
Dry Eylanden
Waranger
Archangel
C. Kiorp
C. Condenos
Duytsche mylen 15 voor een graade.
Engels en Fransoy mylen 20 voor een graede.
Tot Amsterdam.
By Iacob Aertz Colom
Inde Vierighe Colom.
opt Water.
60
81


Spitsbergen
Nieuwlandt
Ian Mayen Eylandt
Duytsche mylen 15 in een graadt
Spaensche mylen 17½ in een graadt
Eng. en Fr. mylen 20 in een graadt
De Custen van Noorweghen Finmarken, tusschen Dronten en de Noort Caep
Door I. A. Colom.
Les Costes et Grèves de Norwegue et Finmarck, entre Dronten et le Nort Cap
NORVEGIA
FINMARCKEN
Dronten
Noordt Cap
Duytsche mylen 15 in een graadt
Spaensche mylen 17½ in een graadt
Eng. en Fr. mylen 20 in een graadt

The Second part of the Firie Columne.

THE SECOND BOOKE,

Of the

EASTHERN and NORTHERN NAVIGATION.

Containg

The description off the Seacoasts off Norway, Finmarck, Lapland, and the Whale White Sea.

The first demonstration,

Where in are set forth the coasles off Norway, from Dronten to the North Cape; as also John Mayes Iland, and the New-found-land off Spitsburgh.

Nomendals iland.

FRom the Iland Gryp to the Nomen-dals Ilands, the course is northeast, eighteene leagues, but from Gryp to the Iland Rust, north and north and by E. sixtie foure leagues, betwixt them lye (besides the Nomendals Ilands) also the Ilands Holyland, and Traenoch. Traenoch and Rust lye thirteen leagues asunder. From Rust to Wero, the course is northeast and by north 9 leagues, but to Loffoert northnortheast three aud thirtie leagues. Betwixt Wero and Loffoert lieth the Maelstrame, whete you may saile through, but at still water. By the west point of Loeffoert you may runne in, and make roade under it. And also you may run through from thence within betwixt the Ilands and the main land, all along unto the north cape.

Holyland. Traenoch. VVero. Loffoert. Maelstram.

Sanien. Tromsound

Betwixt the Ilands Westerholl, Sanien and Tromsound, you may also runne in at divers places, and make roade. Thwart of these Iland lye here and there in some places suncken rockes and foule grounds, a great league and more without the land. He that saileth alongst this coast, may be mindfull there of.

Suroy

From the Iland Tromsound to Suroy it is eastnortheast 15 or 16 leagues to the eastwards of the Iland Tromsound goeth in the Tromsound betwixt the Iland Fogelden and Skyrfen, as you saile in theae you leave the Ilands Loppen, and Loppen-kalf lying on the larboard side without the other Ilands, within it are divers Ilands bayes and sounds, where you may saile in, and seeke road, as Oxefioert, Biurfioert, and other more.

Fogelden Skyrfen. Loppen. Loppen-kalf.

Altenbotten

Betwixt Loppen and Suroy men doe saile through Suyer-sound and Stiernorsound into the river of Altenbotten, & then betwixt them they leave on the starboard side Niusfioerd, Oxe-fioerd and Langefioerd. On the larboard side aboun by the W. point of Suroy, on the land of Suroy, lieth a haven, where by is also a Fisher village, both called Haefwyke, Suroy is about ten leagues long, and lieth on the offside, E N E.

Haefwyck.

Nine or ten leagues to the eastwards of the Iland Tromsound, about three leagues without the land lieth a flowld off rockes a little under water. John Huygen of Linschoten in this second voyage to Nova Zembla, in the yeare 1595 failed with his shippe upon it in faire water and smoot water, that the sheating of this itemme was beaten of to ships; bnt after some beating the shippe turned of with the strong current. It is to be throug that there lye more then men can see, or as yet are discovered.

About five leagues east and by north from the east end off Suroy, lieth the Iland Ingen, betwixte them both lye also Reef holme and Shipholme litle Ilands which you may saile about on both sides, untill under Ingen or Suroy.

Ingen Reefsholm Shipholm.

When as you come in betwixt Suroy and Ingen, there lieth thwart of from Suroy towards the other land, a good haven. called Hamerfeest. A litle further in lye two high little Ilands, and over against them road called Slechtnes. Betweene Hamerfeest and Slechtenes, before that you get Slechtenes, lieth a bay on the land of Suroy, where is a good roade in 25 or 30 fathom close by the shoare. A little past these little Ilands on the land of Suroy, over against the River of Alten, is a good road called Goeshop a fair sandbay.

Hamerfeest. Slechtanes. Goeshop.

Between Ingen and the North-cape, or the Iland Maggereu lieth Helmsbuy, an Iland which you may saile round about, having on the northwest side a bay, called Akerfioerd, where men may make road for southerly and easterly winds, on the southeast side is a bay called Knaarwyke, where men may make road, and lye sheltred for westerly and northerly winds.

Holmes buye. Akerfoerd Knaarwyk

The North Cape is the northermost point of the Iland Moggereu, a little to the westwards of it lye the little Ilands of Stappen,

Northcape Stappen

On the south side of Maggereu even about the east point, lieth Keelwyke a good haven. On the same S. E. side, by the southermost point of Maggereu, lieth a little Iland called Altenfoleu, the Sound betwixt that little Iland, and the land off Maggereu is called Maggereu-sound, there is good roade, and shelter for almoft all winds: Men may runne in through Suyer-sound to the westwards of Suroy within Suroy, Ingen, Helmsbuy, and other more Ilands to the southwards of them, along through divers channels to the southwards of Maggereu, and come out againe into sea betwixt the Northcape & Northkyn.

Maggereu-sound

From the North cape westwards the coast lieth alongst the Ilands west & by south about 37 leagues, and then from thence westwards, it falleth away more southerly.

Of the tydes and courses of the streames, about these foresaid places.

On these coasles a south-southwest and northnortheast moon make full sea. The flood cometh there out of the northwest, and falleth alongst Finmarck towards the North cape.

Between Suroye, and the river of Altena southwest and by w. and N. E. & by east moone maketh high water.

At the North cape a f. w. and northnortheast moon.

To the w. wards of the North cape the streames come out of the n. w. and w. n. w. and fall alongst Finmarck towards the North-cape.

Course and Distances.

From Rust the Loffoert northnortheast	33 leagues
From Loffoert to Sanien northeast	36 leagues
From Sanien to Suyro northeast and by east	43 leagues
From the Iland Tromsound to the w. end of Suroy e.n.e.	13 or 14 leagues
From the east end of Suroy to Ingen e. and by n.	7 leagues
From Helmsbuy to the North cape e. and by n.	5 leagues
From the North-cape to North-kyne and by south	12 or 13 league

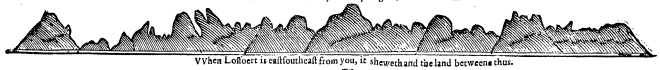
Heights.

The Maelstream lieth in about	68 degrees
The Iland Sanien in	70 degrees
The North-cape lieth in the hight of	71 degr. 30 minuten

How these Lands doe shew themselves at sea.

VVhen the east end of Loffoert is se, and by e. from you, it sheweth thus, with the land to the westwards.

VVhen Loffoert is southeast from you 6 or 7 leagues, it sheweth thus



VVhen Loffoert is eastsoutheast from you, it sheweth and the land betweene thus.

This belonget to the Former.

When this point with the * is w.s.w. from you it sheweth thus.

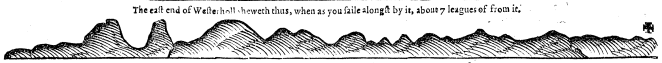
Northfoelen with the land to the westwards sheweth thus, when the point * is southwest and by west from you.

The land to westwards Foelen sheweth thus, when it is southwest and by south from you.

when southerfoelen is s.w. and by s. from you 3 leagues, sheweth thus.

Northfoelen south and by west from you 3 leagues, sheweth thus.

The east end of Wallerhall sheweth thus, when as you saile alongst by it, about 7 leagues of from it.



These two figures belong at the crosses one to the other.

Thus sheweth the Iland of Vanien, when the two high hils upon the east end are southeast and by south, and the point, with the cliff south and by west from you 4 leagues, when as the two forefaid high hils upon the east end are south from you, then they are right one in the other.

Shipholm

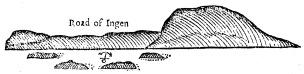
Iland without Suroy

Thus sheweth Suroy, as you saile alongst by it 5 leagues off.

When as Shipholm is southeast and the Iland without Suroy is about 4 leagues from you, then they shew themselves thus.

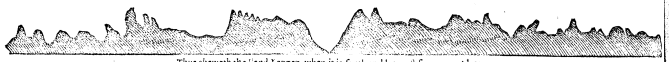
Thus sheweth the Iland Ingen, when it is eastsoutheast 4 leagues from you.

Road of Ingen



Thus sheweth Ingen, when this Hill is one league south and by east from you.

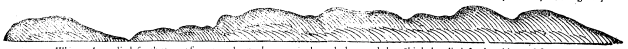
This Hill lying upon the Iland Lappen, you may see over Suroy as you saile alongst by Suroy from the N. end to the S. end.



Thus sheweth the Iland Lappen, when it is south and by west from you, 4 leagues.

Lappen south and by east from you, 4 leagues sheweth thus.

Lappen sheweth thus S.W. and by S. from you, 4 leagues.



When as Ingen lieth south inwart from you about 4 leagues, it sheweth thus, and then Shipholme lieth south and by west from you.

Long-Hill

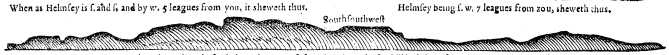
Thus sheweth Ingen, when this long hill is southwest and by west from you.

When Helmsey is south or somewhat more westerly about 3 leagues from you, it sheweth thus.

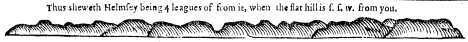
When as Helmsey is s. and s. and by w. 5 leagues from you, it sheweth thus.

Helmsey being s. w. 7 leagues from you, sheweth thus.

Sonthsouthwest

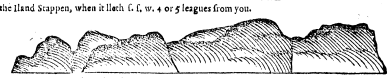


Thus sheweth Helmsey being 4 leagues of from it, when the flat hill is s. s. w. from you.



In this from sheweth the Iland Stappen, when it lieth s. s. w. 4 or 5 leagues from you.

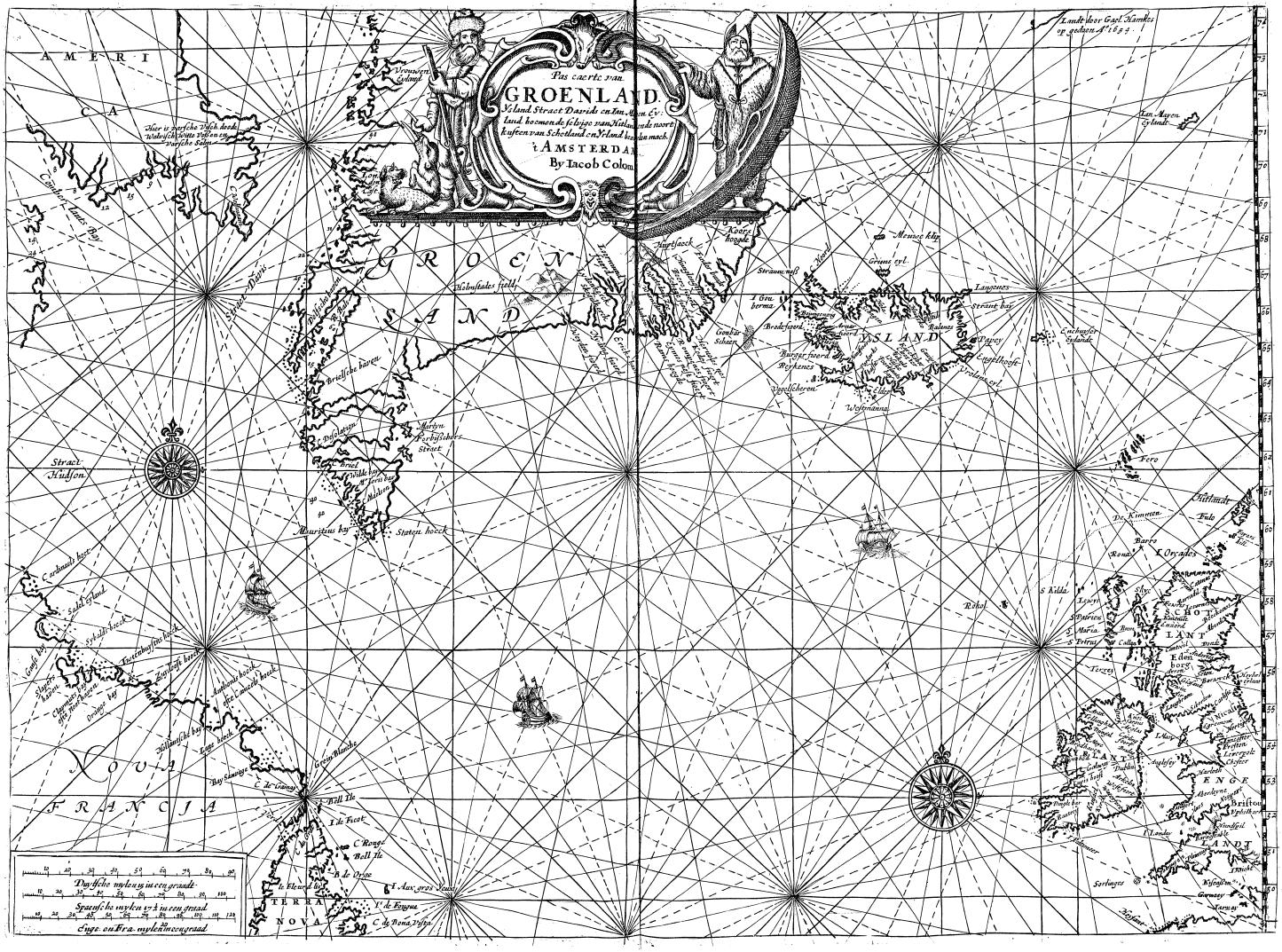
Thus sheweth Stappen, when it is 5 or 6 leagues s.w. from you. North Cape south and by east.

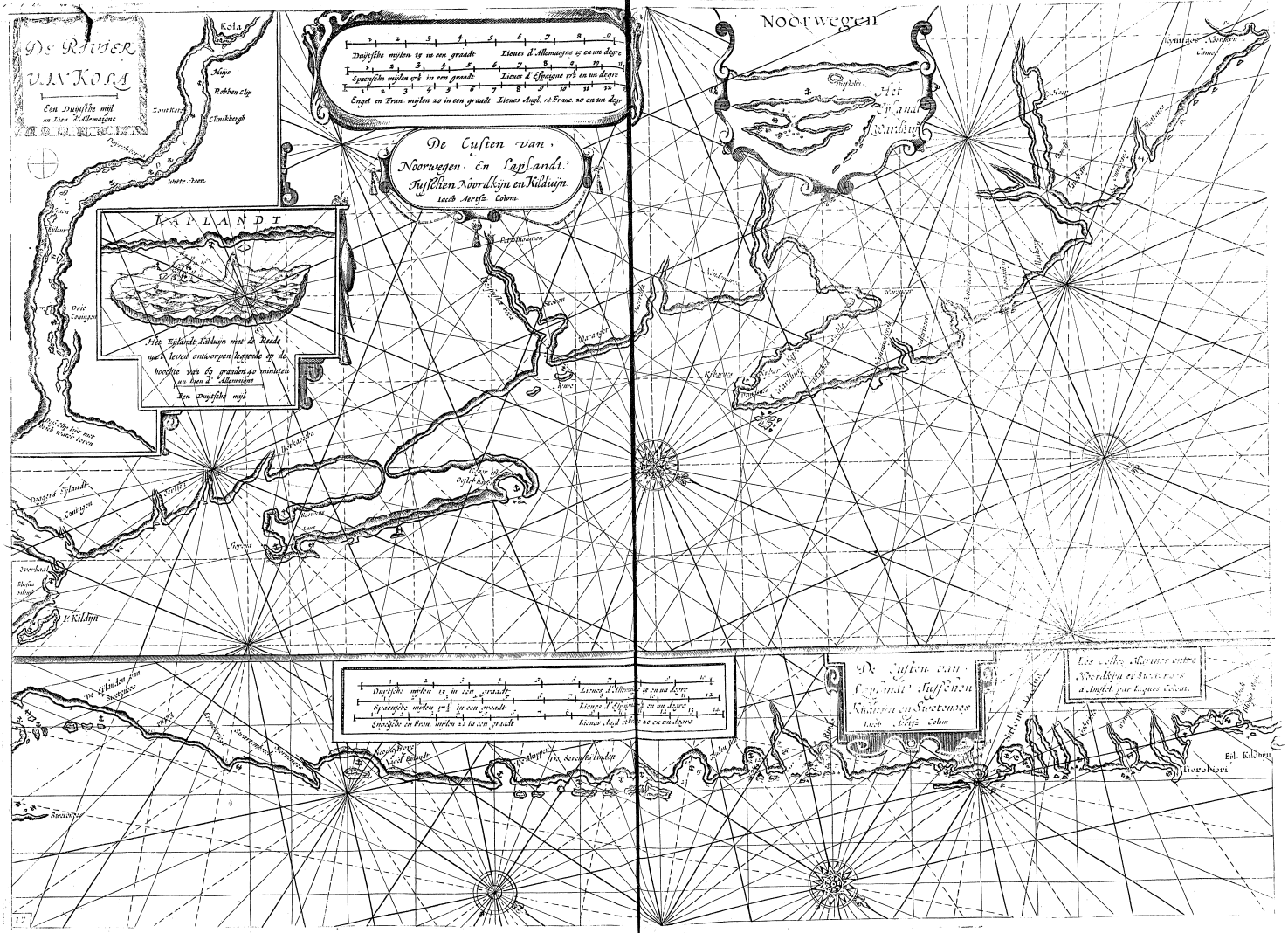


The east end of Stappen sheweth thus, when you saile alongst by it. The Mother with the Daughters southeast and by south.

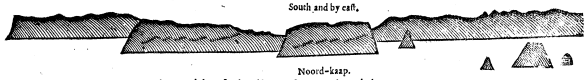
Thus sheweth the North Cape sayling alongst by it, the point being from you as above is shewed.

Soul


Pas caerte van
GROENLAND
Yland, Straet Davids en Ian Mayen Eylant, hoemen de schipge van Hitland, ende noort kusten van Schotland, en Yland
t'AMSTERDAM
By Jacob Colom
Landt door Gael Hamkes op gedaen A° 1893
AMERI
CA
GROEN
LANDT
ISLAND
SCHOT
LANT
ENGE
LANDT
NOVA
FRANCIA
TERRA
NOVA
Straet Hudson
Straet Davis
Hollandsche baey
Mauritius bay
Cardinals baey
Hollandsch bay
Baye blanque
Baye Blanche
Groen Rivier
Bell Ile
Ile Percé
C. Rouge
Ile de Orsie
Ile de Bona Vista
Ile aux grez Sable
Ile de Enguie
Ile Blanche
Ian Mayen Eylandt
Jsl. Bear
Faro
Fula
Barro
Orcades
Rona
Rockol
S. Kilda
Edenborg
Barwick
Berwick
Briston
Engelsche Closter
Dordrecht
Vlissingen
Groeningen
Jarmouth
Yarmouth
Yorlangen
Deutsche mylen in een graad
Spansche mylen 17½ in een graad
Engs. en Fra. mylen 60 in een graad

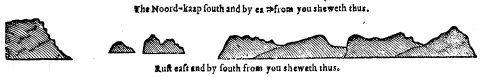

De Custen van
Noorwegen. En Sapslandt
Tusschen Noordkijn en Kildtuijn
Jacob Aertsz: Colom.
De Rivier van Kola
Een Duytsche mijl
ou Lieu d'Allemaigne
Kola
Hoge
Robben clip
Clinckbergh
Witte Zeem
Laplandt
Het Eylandt Kildtuijn met de Reede
Een Duytsche mijl
Duytsche mijlen 15 in een graadt
Lieues d'Allemaigne 15 en un degre
Spaensche mijlen 17½ in een graadt
Lieues d'Espagne 17½ en un degre
Engel en Fran. mijlen 20 in een graadt
Lieues Angl. et Franc. 20 en un degre
Noorwegen
Het Eylandt Seeland
Kildtuijn
Ter Kildtuijn
Seedijck
Ter Seedijck
Vierebergh
Erl. Kildtuijn

South and by east.



Noord-kaap.

The Noord-kaap south and by east from you sheweth thus.



Ruft east and by south from you sheweth thus.

when the Mother with the Daughters eastsoutheast from you, is, the land sheweth thus.

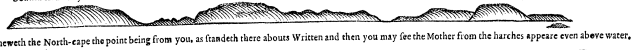
When the North-cape is southeast, and the Mother with the Daughters southsoutheast from you, then they shew themselves thus.

Thus sheweth the North cape sailing alongst by it about 3 leagues from land, when you are close by the land, you may see the Mother alongst above the land.

Northkyn. Mother with the Daughters.

Thus sheweth the North-cape, when as the Mother with the Daughters are southsouthwest 4 leagues from you, then the Northkyn lieth southsoutheast from you, as is here above demonstrated.

Southwest and by south Southwest Southwest and by west.



Thus sheweth the North-cape the point being from you, as standeth there abouts Written and then you may see the Mother from the harches appeare even abeve water.

Thus sheweth the North-cape, when it is west and by north from you, and that you are 3 or 4 leagues without Northkyn.

Southsoutheast.

Thus sheweth Northkyn being southsoutheast 8 or 9 leagues from you, then lieth the north cape 9 or 10 leagues southwest from you, and then between both you may see yet more land in the southsouthwest.

The second demonstration,

In which, are sheweth the Seacoastes betweene the North-cape and Swetenoes.

Northkyn

EAst and by south aboute thirteene leagues from the North Cape lieth North-kyne. From North kyne to Tannebay it is east-southeast tenne leagues, between both, it is all a cleane coaste, without rockes or foule grounds, a high steepe craggie land, without anie strand.

When as you come sailing alongst past Northkyne, towards Tannebaye, you shal meet first with the pointe of Slechtnes, a plaine point lying out, verie good to be known: & then Omega a Fisher village, standing on the sea side, even there to the eastwards of it goeth in the Tannebay, which is a great deepe river, which lieth in first south, & afterwardes s.w. farre within the land, and doth devide it selfe into 2 parts, at the mouth of the river, it is at least 2 leagues or more broad, and all over verie deepe. He that is bound into the Tannebay, must run in alongst by the w. shoar, because he must lie by west shoar, on the e. side is no roade or place, where men may ankor.

Tannebay

On the foreside west side are manie pointes and bayes to see to, as if there where roades, but you must saile past them all so long, untill that you see on the same west shoare a rounde hil, whereupon standeth a Warder, a litle past that, stand some Fishermens houses, upon a lowe hommock, thwarte of these houses runneth of from the land a lowe flatte pointe, you must run in behinde that point, and ankor before those houses, which an ankor to seaward and a hawser fast on the land.

A little to the eastwards of Tannebay lieth the pointe, and the land off Matkorf, from thence to Wardhouse the Coaste lieth southeast and by east, southeast, and most southeast and by south sixteene leagues, betwixt them there is much high plaine land. Halfe wayes betwixt both, but neareft Wardhouse, lieth a high hommock upon the high land, to see to like a castle, or Countrie house, verie good to be knowne, bein thwart of it close by land, it semeth as if there where a great Sounde, where men might saile into Wardhouse are three little ilands with some little rocks also by them, to the southermost is the greateft of the three, which onely is inhabited, upon it is a village of about 300 Norwaye houses with a castle, it is abouts a league long, and lieth an English mile of from the land, lying as the coast most south and north, betwixt both, it is all over deep Water. On the south side of this iland, lieth in a haven or great baye about half wayes the iland, and likewise one also on the north side, so that these two bayes doe come so neare one to the other, that there remaineth no more then a narrow chindle strand about a stone cast broade, dividing so the iland almost into two, the eastermost part is the shorteft, and highest, the westermost is the longest. Close upon the strand, on the E. side of the souther-haven lieth the Castle, to the northwards of it, upon the foreside chindle strand, and about the Baye stand the houses. In the souther Bay it is goodly ring, but the best roade is betwixt the maine land and the Iland, about halfe wayes on the side of the iland against a Sandbay, and right against the Castle, there is good ankor ground, in tenne or twelve fathome landlockt for all winds, except for north and south winds, which blow there right through, yet men hare some shelter of some point of the iland. Men may without feare come in there, betwixt the iland and the Maine, eyther from the southwards or the northwards, it is all over cleanse and cleare, but he that commeth in from the North wardes, must runne somewhat nearer the Rock, where the gallowes standeth upon, then the iland, because there abouttes the iland is a litle foule.

Roade Kildayn

Matkorf

ward house

About a shotte of a Caft peece northwardes from the greateft, lye the 2 smalleft close one to another, seeming a farre of to be one iland, are together not an English mile long, but high and rockie to see to, there lye also 2 or 3 rocks by them.

On this coaste like as at the North-Cape a N. E. and S. W. Moone maketh high Water.

From Wardhouse to the point of Kegor or the Fishers iland, the course is S.E. and S. E. and by S. 10 leagues.

Betwixt them both is a great Baye, where in are divers Sound and Rivers, amongst other the River Pitsing, which is a great faire and large River, where men may goe in with greate shippes, a good wayes within the river is good roade, there

there is taken and laden muſt Sammon, but there fall no other ſpeciall wares. Southſouthweſt from the point off Kegor lie two Ilands, to the Southwardes of them men doe runne into Monnick-forde.

Kegor or Fiſhers Iland. Kegor is a faire haven, lying at the north end of the Fiſhers Iland, a little without the pointe; There lie two or three rocks at the North-point of Haven, and alſo a funcken rock in the middeſt of the Havens mouth: you muſt leave the funcken Rock, with the other Rocks on the ſtarboard ſide of you, and run in by the ſouth ſhoare and edge then behinde the forefaid rocks, and anckor there in ſeven or eight fathome, the Havens mouth lieth in Southweſt, it is there ſo good lying as in anie havens there abouts on the Coaſt.

Eaſter haven. The Danes cal this haven Eaſter-haven, there was wont to be the ſtaple of the Fiſh, where everye one muſt come to buye: thereof the iland is yet called, whereon Kegor lieth the Fiſhers Iland.

It is indeede no iland, but very neare: it is faſt to the maine land, with ſuch a very ſmall neck, that the Ruſſes, which come from Kilduyn, or the River of Cool, and are bounde to the river Pitſing, doe hoe alongſt within this land, and hale their boates over that ſmall neck, for not to goe about a ſeaboard.

Laus. From Kegor to Laus, the courſe is alongſt the ſhoare ſouth-eaſt and by ſouth, ſomewhat eaſterlye nine or tenne leagues. This is a right plaine Coaſte, without pointes or bayes, all alongſt by Laus to Tiepena, but the ſouth pointe of Laus lieth out a little, upon which ſtand two Warders, to the northwards of that pointe is the haven of Laus, a faire ſand-baye, there is very good lying for ſoutherlye or eaſterlye winds, but not for northerly winds, the Winds betweene the northermoſt and northeaſt doe blowe therein open, and make therein a very great hollowe ſea, men lie there in twelve, tenne and eight fathome, according as they runne farre in, the farther the ſhoulder, but all cleane riſing ſandground.

Tiepena. From Laus a little towardes Kegor lieth a little Iland, behinde which is good anckoring for eaſterlye windes, in cleane ſand-ground, but it is ſomewhat narrow.

From Laus to Tiepena, it is a great half league, at the point lie ſome little rockes, but you can not ſee them, before you be cloſe them. Tiepena is a faire haven, when you come from the northwards, you muſt runne ſo farre to the Southward, alongſt by the haven openeth it ſelfe, being come in, you muſt edge up to the northwards, and anckor there, there you lie landlocke for all winds, there are no dangers which may hurt you, but it is over all cleane ſandy ground.

A little aboute the pointe, to the Southwards of Tiepena, which is on the Southweſt ſide, of the Fiſhers Iland is another faire haven, where men may goe to ankor, called Kowens.

From Laus to the river of Cola, the courſe is ſouth and by eaſt and ſouthſoutheaſt about 10 leagues. But Kilduyn and Laus lie S.E. and by S. ſomewhat eaſterly and N.W. and by north, ſomewhat weſterly, alſo 10 leagues aſunder.

The River Cool. For to faile up into the River of Cool or Cola, you muſt goe from Laus, or the ſouthend of the Fiſhers Iland towards the River Southſoutheaſt and South and by Eaſt run about by the high land of Poden-wolck, and then the river ſhal open it ſelfe very wide. When you are by the point of Laus, you may ſee the iland kilduyn, and the river of Coole, or the land by it. Betwixt Laus and the River of Coole, is alſo a great baye.

When as you are in the mouth of the River, it lieth in firſt ſouth and by weſt, & then ſouthſoutheaſt, to that iland, which ſtandeth marked with A in the Carde of this, River, and then by little and little ſouthweſt and by ſouth, alongſt by the iland marked with B unto the Traine iland then ſouthweſt abd by weſt, and by little and little about the point weſt and by ſouth, afterwards in weſt, unto Divels point; over againſt it lieth the White ſtone, which lieth upon the land, thwarte of it is good, roade. From thence againe weſt and by ſouth, weſtſouthweſt, ſouthweſt and ſouthſouthweſt unto Cool.

Road in the River. When as you com into the river, and will ſeeke roade there, you muſt keepe alongſt by the weſt ſhoare, being ſomewhat within you ſhall ſee a little iland lying cloſe by the ſhoare: from thence ſomewhat further about the high pointe is a Bight or baye, and in that Bight a Sand-baye, where men may lye a ſhippe without anckor or cable, that is a faire Sand baye, where men may runne in all alongſt.

Alongſt by the north ſide it is five fathome deepe, and cleane ſand-ground, men runne in there betwixt the two pointes, but there lieth a black Rock in the narrow, betwixt both ſheares, which they muſt leave lying on the ſtarboarde ſide, within that rock it is three and two fathom deepe unto the ſtrand, within there is faire greene field.

A little without the baye lie two ilands, whereof the outermoſt or eaſtermoſt is the ſmalleſt. When as in ſailing up alongſt the river, you may come by theſe two forefaid little Ilands, about halfe wayes to the Iland marcked with A, there is alſo good roade, at the weſt ſhoare, you ſhall ſee upon the high land three Warders, called the three Kings thwarte of them is the roade, Roade 3 Kings.

When you are ſomewhat paſt the Iland A you can not ſee the river any more open, but it ſeemeth to be ſhut, and cloſe, for that Iland by A commeth then under the high land, on the eaſt ſide.

Under the Iland marked with B is alſo good roade and clean ſand-ground. Roade.

Likewiſe is alſo good roade under the Traine Iland, that is reckoned for the halte of the River, to wete, off from the mouth of Cool.

When as you come now a little paſt the Traine iland, where the C ſtandeth, then you ſhall ſee out a head a black blewe hil, called the Divels hil, it ſeemeth there to ſee to, as if the River were Piſſing, doe hoe alongſt within this land, and hale their boates over that ſmall neck, for not to goe about a ſeaboard. Divels hil.

On the other ſide men doe not come ſo commonly, (except it be againſt their wills) there ſeeme alſo to bee many bayes and roades, and alſo ſome little Rivers. When as you come alongſt by the Divels hill, where the D ſtandeth, paſt the White ſtone, then you may ſee the Klinck-hil on the weſtſide, and almoſt all alongſt unto Cool. When as you may ſee the Klinck-hil, there is ground by the weſt ſhoare for to ankor in, then there are on both ſides no daungers, but when as you come ſo far into the place, where the letter E ſtandeth marked, there you muſt ſomewhat ſhunne the weſt ſhoare, becauſe of a little ſhowld which ſhooteth off from the ſhoare, and keepe in the middle of the channel, until that you come againſt the Clinck-hill, there you muſt againe goe cloſe alongſt by it, in the middeſt of the fareway lieth an Iland of rocks, which at high water is covered, where of you muſt take good heed. Klinck hil;

By the Clinck-hill unto the Robben Iland ſaile al alongſt by the weſt ſhoare, the Robben Iland is alſo covered at high water, but when it is under water, then anckor thwart of the Water, but when it is under water, then anckor thwart of the burnt trees. Thwart of the Robben Iland lieth a very great diſh Hommock, being come within it, you muſt edge to the weſtwards, ſo that the haven is altogether ſhut, and that you can ſee no ſea, you may anckor there ſo deepe or ſhould as you will, it is there every where cleare & cleane white ſandground, and ſomewhat oazie & ſofte, there you may alſo without feare faile on againſt the ſhoare in the oazie, and ſo may ſave a ſhippe without anckor or Cables. Robben Iland.

The Iland Kilduyn is about two leagues long, & one league broade, and lieth weſt northweſt and eaſt ſoutheaſt alongſt the land, like as alſo the channell betwixt the iland and the maine land, which is at ſome places about a halfe league broade, and at ſome places narrower, but all over very deepe and cleane. About the middeſt, yet neareſt the eaſt ende, is a faire cloſe roade, betwixt two points, that lie out towards the maine land, there men lie under the Iland, cloſe to the ſhoare, before the Laps tents, under the eaſtermoſt point, which is a low plaine point, in twelve, thirteene, or fourteene fathome, ſandground, more to the ſouthwards, it is very deepe, you ſhall ſoone have 50 and 60 fathome. Kilduyn.

If you will goe to anckor under Kilduyn comming from the northwards or the weſtwards, then run about by the weſt end, in betwixt kilduyne and the maine land. When you are come ſomewhat within, you ſhall eſpy a litle round Iland, there the Channel beginneth to be narrow, yet it is broade enough for to turne to windwards through, faile forth towards the ſouth-eaſt end, untill you come in betwixt thoſe two points, and run to the foreſaid low point, and anckor there within the bight, before the Cabbens ſo neare to the land as you pleaſe, there you lie landlockt for all winds, as if you lay within a towne in a cloſe haven. For to faile in from the eaſtwards, you muſt faile in to the weſtwards by the eaſt end, ſo long untill that you come by the For to fall into Kilduyn from the weſtwards.

the foreſaid low point of the Iland, then edge up about it to the northwards, and runne into the forefaid bight, before the Cabbens, and anckor there in twelve, thirteene and fourteene fathom, that is the chiefeſt roade.

At the north and eaſt end of Kilduyn, betwixt the Iland and the maine land, there is alſo a very good roade, in eight, tenne or twelve fathom, where men may lye ſheltered for all winds. Thereabout is on the Iland a good water place, there the Warden mmeth running off from the high Land, there men may goe lye by it, and fill ther caske lying in the boate.

Yoy may alſo ankor under the maine land, betwixt the narrow, and the Roade of Kilduyn, at the place where the anckor ſtandeth marked, in the Carde. At the eaſt end of Kilduyn lieth alſo a Fiſhers village, called Kammen, at a high point, which is called the Sacrifice point.

From the Iland Kilduyn to the point Tiribirry, the courſe is ſoutheaſt, and ſoutheaſt and by eaſt about five leagues, betwixt them is a great Bay. In this bay, a great league from Kilduyn lieth a high iland called Bliefna, Olinie, which is next or the neareſt Olinie, behinde it, under the maine land, neareſt the ſouth end of the iland is a good roade, where three or four ſhips may lie verie well. Bliefna Olinie.

There lieth a round hill, or high Hommock upon the maine land, which ſheweth out above al the other hommockes, and is very good to be knowne, upon which ſtandeth a high croſſe of two croſſes one above the other, to the northwards of two croſſes lieth a flat point, thwart of it lye ſome Rocks alongſt the ſhore, which at high Water are covered.

A the ſouth end of the Iland Olinie, a litle from Land, lieth a rock almoſt even with the Water, but you may always ſee it well by the breaking of the Water.

To the northwards of the Iland about an Engliſh mile, lieth rock not farre from the Land, and alſo to ſeawards from it a funcken rocke, which you can not goe over at low Water.

He that will (comming from the northwards) goe to ankor behinde Olinie, muſt runne a good wayes to the eaſtwards off this foreſaid rock againſt to the Northwards of the Iland, for to avoid the foreſaid rock. Beinh come behinde the Iland, you ſhall eſpy the foreſaid round hommock with the Croſſe, you muſt not run paſt the croſſe, but leave it on the larboard ſide, and faile in cloſe by it for to avoid the foreſaid rockes, which lye off from the flat north point, the point with the Croſſe is very cleane and ſo ſteepe, that you might lye with a ſhip on againſt the ſhore without any hurt.

He that will come into this Roade from the ſouthwards, let him run alongſt by the coaſte, which is very cleane, untill paſt the foreſaid point with the Croſſe, and edge up cloſe by it, as is beforeſaid.

Men doe anckor within the point in ſeven, ſixe, five, foure, and three fathom, ſo deepe or ſhould as they will, there can no grown ſea at all.

About halfe wayes betwixt the Iland Olinie and Tiribiry is another haven or great Bay, where men may lye landlockt for all winds. Bliefna Olinie.

Tiribiry. Tiribiry is a great River and off-water, where is a great Sammon fiſhing, there men maj goe in with great ſhippes, and anckor every where within it where they will in good ſandy-ground, it lieth in moſt ſouth, and afterwards more Weſterly, the eaſtermoſt point lieth out more to Seawards then the other, ſo that it maketh a Bay, where men ride undea for a northweſt winde.

Two leagues to the ſouthwards of Tiribiry lieth Waronia, which is a great ſand-bay or haven, which at the mouth is narrow, but within it is a broad ſound, there is alſo an off-water, where is alſo much Sammon caught.

Within this bay it is every where good anckoring, ſhowld Water and cleane ground.

Before the mouth of this haven lie 3 little Iland, behind them is alſo good road.

Gabrikis. Two leagues or two leagues and a half to the Southwards of Waronia lieth a Gabriele, a tyde haven, which falleth dry within, ſo that men may goe over there dry at low water, it floweth there twelve foot up and downe, a Southſouthweſt moone maketh high Water on this Coaſt.

In the mouth of this haven lie 3 Ilands, two on the North-ſide (which are the loweſt) and one in the South ſide, that is the higheſt, you muſt runne neereſt the Southermoſt when as you will faile in there: being come within the Ilands, you muſt edge up to the northwards behinde the 2 northermoſt Ilands, and anckor there on the north ſide of the haven, there it is ſeven and eight fathom deepe cleane ground.

About a league to the ſouthwards of it lieth Salenſi Daelna, Daelna Salenſi. that is to ſay, the farther Salenſi, but betwixt them both a litle

channell, which is broad and deep enough, but when you faile in there, you muſt run neareſt the Iland, for to avoid a funcken rock which lyeth at the forefayd point of the maine land.

Theſe channels both from the ſouthwards and from the northwards lye in both alongſt the ſhoares, when as that you come then within the Ilands you may anckor there all over where you wil, there it is broad and large, and every where cleane and cleare. Men doe anckor commonly under the greateſt Iland thwart of the great Warder, and alſo behinde the northermoſt Iland in five, foure, or three fathom, there it is very good lying, but with a ſoutheaſt winde, the ſea commeth a litle rowling in, but there can goe no great fea.

Farre within the ſouthermoſt bay, allmoſt before the river, lyeth a rock, but above Water. Without the greateſt and the ſouthermoſt Iland, lieth alſo a litle Iland, or great rock, ſomewhat round, you may faile out and in betwixt the ſouthermoſt and the greateſt Iland, alongſt to the northwards of that litle round iland, that is you leave the ſouthermoſt iland with the outermoſt litle round iland both on the ſtarboard ſide, and the greateſt iland with the Warder on the larboard ſide, when you ſayle out, this is a verie narrow channell, but verie cleane and cleare, ſo that there is a very narrow channell, but very cleane and cleare, ſo that there is nothing to be avoyded, but onely a litle funcken rock, which lieth at the north end of the outermoſt litle round iland, and falleth dry at low water, nevertheleſſe it is not good to uſe it; except it were for need that you could not doe better.

He that is bound into this haven, muſt run cloſe alongſt by the ſhoare for to get ſight of the forefayd Ilands, for by reaſon that the innerland is high, the Ilands lye ſo under the land, that men can hardly ſee them, when they be any thing of from the ſhoare.

A halfe league to the ſouthwards of Rinde is another great Bay, or haven, before it lye two litle high Ilands upon the northermoſt ſtandeth a great croſſe, you may fayle in there about on both ſides of theſe litle Ilands, and alſo through betwixt them, and anckor where you will in fifteene, twelve, eight, or five fathom, deepe or ſhowld, according as you fayle farre in, & lye there ſheltred for al windes, but when the winde is harde out of the ſea, thwart upon the ſhoar, there wil com in ſomwhat a rowling ſea, but there can goe no great ſea that can hurt you. A litle to the northward of this haven lyeth a low long iland cloſe to the ſhoare whereby you may alſo know this coaſt, you may fail through betwixt this forefaid iland and the maine land without any danger.

From this haven to the Seven Iland are foure great leagues. A litle to the northwards of the end of the Seven Ilands, lieth a faire great land bay, where is alſo good anckoring for ſoutherly and ſoutheaſt windes, but not for eaſterly winds, with a northeaſt or ſea wind, it is bad lying there for there is no ſhelter for them, men doe anckor there in twentie, fifteene, or twelve fathom, according as they lye far or neare to the ſhore.

Golden-Bay. The Ruſſes call this Bay the Golden Bay, becauſe the ſtrand is of red ſand.

On al theſe forefaid coaſts a ſouthweſt and northeaſt moone maketh high water, like as on the former.

Seven Ilands. The Seven Ilands lye of them alongſt the ſhore, the firſt or northermoſt is farre the greateſt of all, a high Iland. The 4 northermoſt follow cloſe one to the other, and lie about an Engliſh mile, or a ſhot of a caſt peece, a litle more or leſſe of the Iland, ſo that men may ſaile there through betwixt. The 5 is a litle round Iland, and lieth nearer to the land, there you can not runne through within it, which is faſt to the land with a ſhould of rocks where of ſome lie above, and ſome under water. The 2 ſouthermoſt lie a good wayes to the ſouthwards off the fifth: betwixt them and the maine land you may alſo ſaile through, you may alſo runne through in and out betwixt theſe ſame Ilands everie where, except betwixt the ſecond and third to then of from the northwards, betwixt them it is foule.

The firſt Iland. Betwixt theſe Seven Ilands and the maine land, goeth a ſtrough tyde, as well of flood, as of ebbe, where of men muſt be very carefull.

Betwixt the northermoſt and the maine land is a good road (thwart of the ſouth end of the iland) under the maine land, there is a faire ſand-bay, with an of-water, where is much Sammon to be caught, but is not there uſed.

A litle to the northwards of this Sand-bay lieth a litle iland betwixt the great iland and the coaſt, men doe anckor to the S. wards of that litle iland, thwart of the land bay in ſeven, ſix, five, or foure fathom, ſo ſhould as they wil, there is a very even ſandground, riſing ſo even as if it were planed.

Over againſt the forefaid bay men may make road under the ſouth point of the Iland, thwart of a litle bay, there they bring a howſer on land, & an anckor to ſeawards in nine tenne fathom, there they lye ſomewhat more out off the tyde then in the bay over againſt it.

Betwixt this great Iland and the Coaſt is about two third parts of the channel towards the main land, flat riſing ground, and the other third part towards the Iland Deep, the nearer the iland the deeper unto 18 and 19 fathom.

About halfe wayes betwixt that forefaid litle round iland, and the north point of the greateſt iland, ſtand on the mayne land ſome litle Lappiſh houſes, or a litle village.

Second & third Iland. Betwixt the ſecond and third iland, or neareſt thwart of the ſecond, to tell from the northwards, lyeth yet a litle Village, thwart of it is a bay where men may anckor in tenne or twelve fathom all cleane ſand-ground, but with a ſoutheaſt wind there commeth in a rowling ſea, but with northerly winds it is very good lying there.

The fourth Iland. Thwart of the fourth iland on the mayne land, is alſo a ſand-bay, where is alſo good road in ſeven or eight fathom for northweſt or north wind, but with an eaſt winde it is there bad, lying, that bloweth there in open through betwixt the ſouth and fifth iland.

The Shipper. Even at the end of the ſeven ilands is a great Indraught, or bay, which the Ruſſes call the Shipper, which is narrow at the comming in, but within indifferent large and wide: within it per. is good road in 12, 8 and 4 fathom clean riſing ground, but with a n. e wind it is bad lying there, that bloweth there flat in.

About nine leagues to the ſouthwards of the ſeven Ilands, lieth a point called Stornenos, that is to ſay, Black point, it is ſo called, becauſe it is very black to ſee to, there within it the land is high, and goeth downwards low towards this point, almoſt as Swetenoes.

At this point the land beginneth to alter in forme to the northwards of it the coaſt is altogether high, but to the ſouthwards of it all low and even land, ſo that thereby you may know (when you faile alongſt this coaſt) whether you be to the northward or to the ſouthwards of this black point.

Noock Oitrove. A litle to the northward of this point lieth a high and great Iland a halfe league long, which the Ruſſes call Noock Oitrove, which is the Nayle iland, behinde it is very good roade, you muſt run in there from the ſouthwardes, from the northwards, you can not come in there behind it.

The north end is faſt to the maine land with a bancke or ſtrake of ſand, which lieth moſt part above water, you may faile in there ſo far behinde it, as you will, and anckor in ten, 8, 6 or 4 fathom, the further that you faile in the ſhoulder it is, there it is very good lying, and ſheltered for all Winds.

Evanekrift From the Stornenos, or the black point to Evanekrift, it is ſouthſoutheaſt 4 or 5 leagues, that is a point with many croſſes, under it you may make roade for ſoutherly Winds.

Cletna. From Evanekrift to Kletna are yet three or foure leagues, this is a pointe whereupon ſtand alſo many croſſes, it lieth out a litle but not ſo much as Evanekrift, there you may have alſo road for ſoutherly Winds, but not for Seawinds.

Land of Iockena. From this point to the ilands of Swetenoes or Iockena, it is two leagues, there are 6 in number, whereof the five lie alongſt the ſhoare about the ſpace of two leagues, the ſixth lieth within the other, thwart of the ſouthermoſt of the five: The three northermoſt lie one by the other, as alſo the two ſouthermoſt parted aſunder from the other three the northermoſt off all theſe ilands of Iockena lieth from the point of Swetenoes due Sweetnoes Weſt 3 leagues, behinde it is good roade thwart of the ſouth end in five or ſix fathom. The point of Swetenoes is a flat point lying out to the Weſtwards off it, at the end of theſe forefaid Ilands, goeth in the river of Iockena, where is a great Sammonfilling. When you are by Swetenoes you can ſee litle perfection of theſe ilands, becauſe the maine Land is much higher then the Ilands.

For to ſail Iockena into the river of Iockena. He that commeth from the northwards, and is bound in to Iockena, muſt runne cloſe alongſt by the ſhoare, for to get ſight of theſe ilands. Through foure ſeverall wayes you may faile through theſe ilands into the river of Iockena: Firſt comming from the northwards, you may faile alongſt by the ſhoare, through betwixt the ſhoare and the ilands, (which you leave then all on the larboard ſide) into the river.

The ſecond paſſage lieth in through betwixt the three northermoſt, and the two ſouthermoſt ilands, that is a broad, wide and deepe, and alſo the beſt channel of al, it lieth S. Weſt, and ſouthweſt and by Weſt from the point of Swetenoes, and lieth in moſt ſouth, when you faile in there, you muſt runne neareſt the ſouthermoſt ilands, becauſe of a funcken rock which lieth in this channel ſomewhat of from the third iland, at high Water you may run over it, but not at low Water.

Being

Being come within theſe Ilands, you ſhal ſee the ſixth Iland, which lieth within the two ſouthermoſt, you muſt run about by it, leaving it on the larboard ſide; when as you are then a litle paſt that innermoſt Iland, you come againſt the high point, and faile in alongſt amidſt the channell, betwixt both Ilands there it is ſhould water, to wit, five, foure, three, to two fathom and a halfe, but you may faile in amid the channel without feare, all alongſt unto Lappiſhouſes, where the Sammonfilling is, and anckor there alſo in the middeſt of the River, thereabouts lye ſome funcken rocks, which at low water are uncovered, whereof you muſt take heed.

For to have the right knowledge of this channell, you muſt looke out for to high point, which lieth at the weſt point off the river, within theſe Ilands, when that is behinde the fourth Iland (to reckon of from the northwards) and the point of Swetenoes is northeaſt and by eaſt from you, then you are right open before the forefaid channell.

Betwixt the two ſouthermoſt Ilands goeth alſo an indifferent wide channell through, where men can fayle in, and ſo come on againſt the innermoſt Iland, which you may fayle about on both ſides.

Betwixt the Ilands and the mayne land, you may alſo fayle through, but that is a very narrow Channel, men fayle through it, as if they fayled in alongſt a ditch betwixt two Dykes.

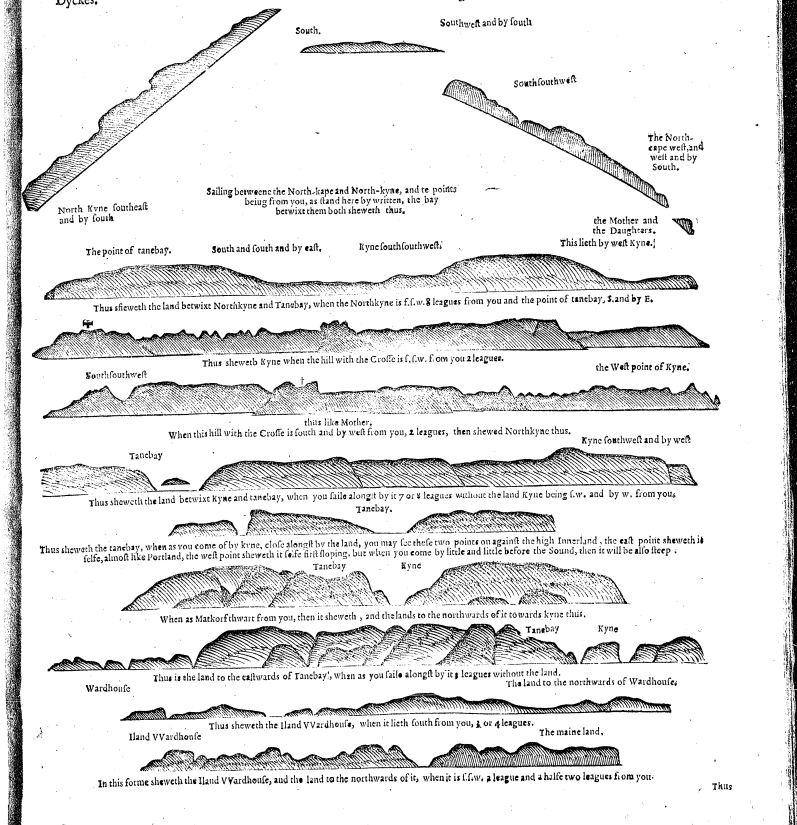
For need, or if it were in extremity, you might alſo fayle through at high water betwixt the northermoſt Iland, & the ſecond and likewiſe alſo betwixt the ſecond and third, but if you can be any means doe better, it is not good to doe it.

Men may anckor at divers places within theſe Ilands. Betwixt the two ſouthermoſt Ilands, and the innermoſt Iland, you may have roade, where you lye ſheltered for al winds, and ſafe from Ice-drifts out of the ſea. Within the innermoſt Iland you muſt alſo ankor over againſt it ſomewhat further in againſt the ſteepe point. At the rivers mouth, on the weſt ſhoare is a bay where you may faile in, and anckor ſo neere to the ſhoare as you will, in ſix, five, foure, and three fathom ſoft flicking ground, there you lye ſafe from Icedrifts. You may alſo anckor on the eaſt ſide, right before the ſteepe point, but there you lye not ſafe for ice that commeth out of the river. The tyde here alongſt theſe Ilands, a great neere with the tyde of Swetenoes, it floweth the ſpring tydes neare to two fathom and a halfe up and downe.

Behind the point of Swetenoes you may run into the Bay, and anckor there for a north, northeaſt and eaſt winde, there is cleane ground.

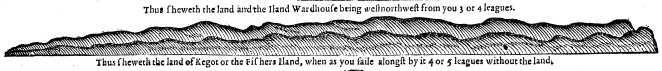
At Kildujn an E.S.E. Moone maketh the highſt water.

Alongſt theſe coaſts of Lapland to the eaſtwards of the N. Cape, the flood commeth out of the northweſt and N. N. W. and ſo runneth alongſt the land unto Orlogenes.



Thus

Thus sheweth the land and the Iland Wardhouse being westnorthwest from you 3 or 4 leagues.



Thus sheweth the land of Kegot or the Fishers Iland, when as you saile alongst by it 4 or 5 leagues without the land.

Thus sheweth the land or the Fishers Iland, when as you saile alongst by it comming from the westwards comming from the westwards.

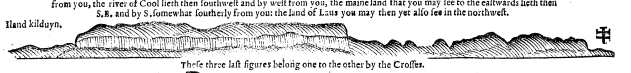
Kilduyn. Maine land. River of Kool.

In this forme sheweth Kilduyn, when the steepe point lieth S. and by E. and the River of Cool S.w. about 5 leagues from you, and the land to the westwards of Kilduyn is very hilly, and the river doth shew it selfe verie wide open as here standeth portrayed.

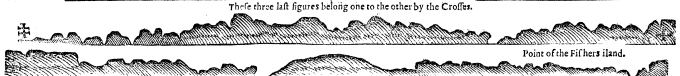
the River of Cool.

Thus sheweth the iland of kilduyn, when the westpoint lieth southwest and by south, and the eastpoint south and by west, somewhat westerly from you, the river of Cool lieth then southwest and by west from you, the maine land that you may see to the eastwards lieth then S.E. and by S. somewhat southerly from you: the land of Laus you may then yet also see in the northwest.

Iland kilduyn.



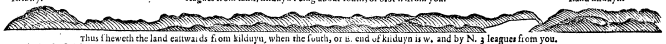
These three last figures belong one to the other by the Crosses.



Point of the Fishers iland.

Thus sheweth the iland kilduyn, and the land to the northwards of it in the bay towards Fishers iland, when as you are betwixt them both 7 or 8 leagues from land, kilduyn being about south, or S.S.W. from you.

Tiribiry. Iland kilduyn.



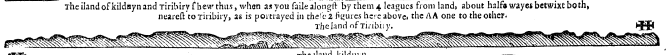
Thus sheweth the land eastwards from kilduyn, when the south, or S. end of kilduyn is w. and by N. 3 leagues from you.

The land of Tiribiry.

The iland kilduyn.

The iland of kildyn and Tiribiry shew thus, when as you saile alongst by them 4 leagues from land, about halfe wayes betwixt both, nearest to Tiribiry, as is portrayed in the 2 figures here above, the AA one to the other.

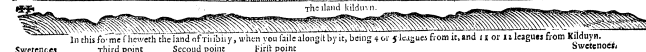
The land of Tiribiry.



The iland kilduyn.

In this forme sheweth the land of Tiribiry, when you saile alongst by it, being 4 or 5 leagues from it, and 14 or 15 leagues from Kilduyn.

Swetenoes Third point Second point First point Swetenoes.



Seonce.

Thus sheweth the land betwixt Swetenoes and Orlogenes, as you saile alongst by it.

The third demonstration,

Wherein are set forth the Seacoasts and Havens off Swetenoes the Whole White Sea.

Lambascho.

FRom Swetenoes to Lombascho, the coaste lieth southsoutheast thirteene leagues. Under Lombascho men may also goe to ancker, but it is not there very good lying, especially with great shippes; the ground there is not cleane, and when the winde out of the Sea, commeth in there rowling very much. The lying of this roade standeth drawne out at large in the Card, with the depths set downe as it is at high water and neepe tydes: the water falleth and floweth there at least two fathom up and downe, and at spring-tydes little lesse then 3 fathom, or 2 fathom and an half.

Within the point, or in the bight of Lombascho you may not ancker, there remaineth not above 3 foot water, and the ground is stonie and foule.

To the northwards of Lombascho lye 5 Ilands lying alongst the coast almost halfe wayes to Swetenoes.

Three leagues to the southwards of Lombascho, lieth a black steep point, untill there the coast lieth of from Lombascho also S.S.E. but from that point to Orlogenes, the course is S. 9 leagues, betwixt them there is no place where men may ancker, but all alongst a Whole coast, cleane and steepe.

Orlogenes.

From the point off Orlogenes lieth of a stone-riffe a shot off a cast peece into Sea, which falleth dry a great wayes at low water, whereof men must take very good heed.

From Orlogenes to the river of Ponnoye, it is five leagues; betwixt them lye the three Ilands. First from Orlogenes to the two first Ilands, the course is S. 3 leagues, and from thence to Ponnoye S.W. and by S. 3 leagues. three Ilands.

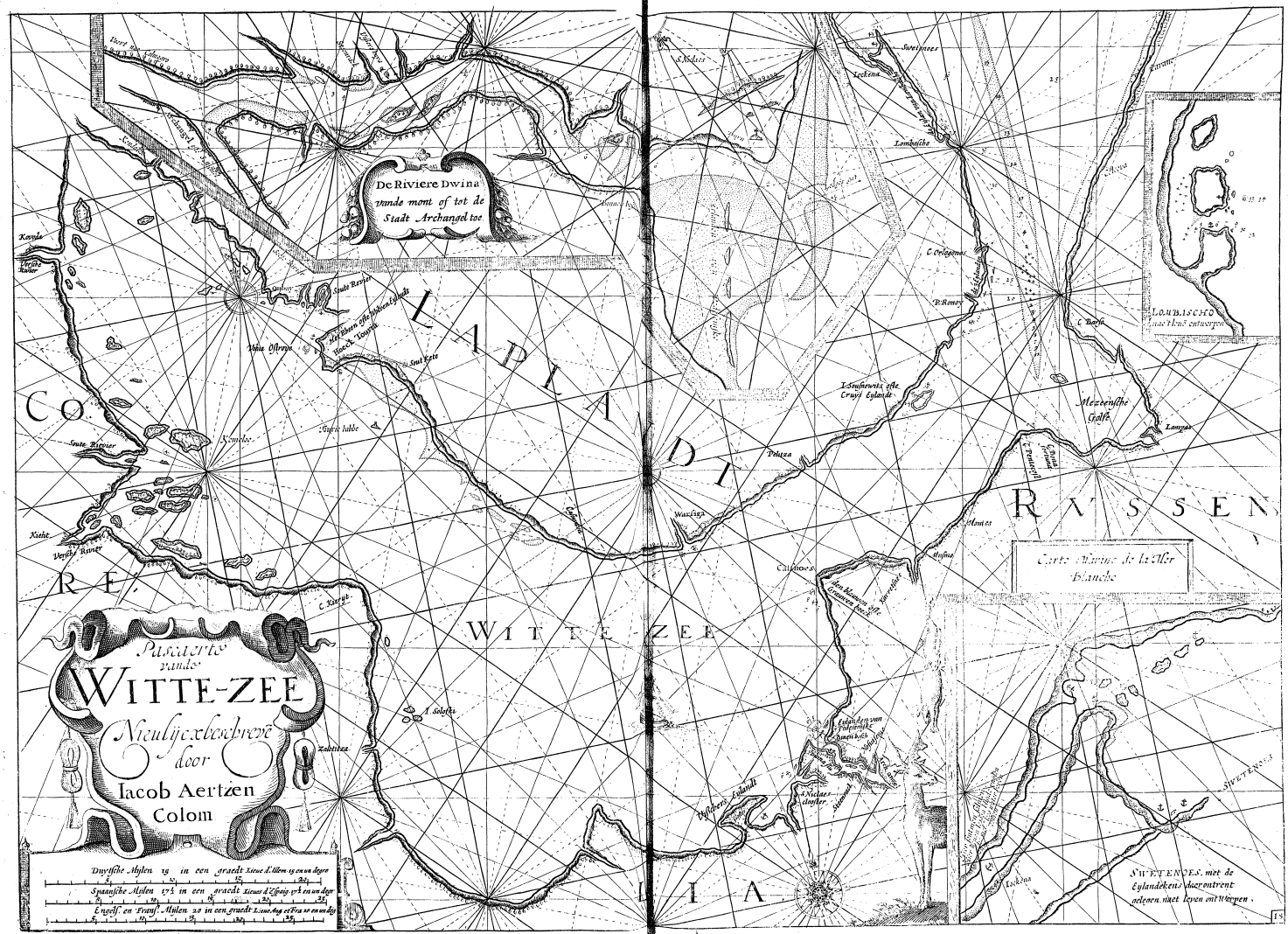
A halfe league to the northwards of Ponnoye lieth the third of the three Ilands, so that the two and the third lye about two leagues asunder.

These Ilands are much lower then the maine land, so that they can hardly be seene or not at all, except you be by the shoare, thwart of them you may come neare tothe shoare in 7 fathom without danger.

Thwart of these three Ilands, and Ponnoy, the mouth off the white sea is at the narrowest.

About 4 leagues thwart of to seawards from the 3 Ilands in the middest of the mouth, lieth a should, which is very uneven and stony, and at some places with low water commeth dry above water, it lieth south and north, first north alongst the coast, at last northnorthwest untill thwart of Lombascho, but there alongst it is deepe enough, 15 and 16 fathom. About S. E. from Ponnoy it is at the shouldest seven fathom deep. You may also saile alongst to the eastwards of this should into the white sea, but there it is should water, uneven and very should. The right fareway is alongst to the westwards of it, and five and twenty fathom deep.

Ponnoy is a Riaer where at low water remaineth no more then


De Riviere Dwina
vande mont of tot de
Stadt Archangel toe
Pascaerte
vande
WITTE-ZEE
Nieulijcx beschreven
door
Iacob Aertzen
Colom
WITTE-ZEE
LAPLANDIA
RVSSEN
Carte Marine de la Mer Blanche
LOVBASCHO
SWETENCES, met de
Eylandekens daer omtrent
gelegen, niet beyen om Worpen.

then ten foot water, it floweth there with a spring-tyde 3 fathom up and downe, and with an ordinary tyde 1 5 foot.

From the three Ilands to the Iland Souinowits: when men doe call the crosse Iland, the course is f. w. and by f. or as some doe hold f.w. 10 leagues, or from Ponnoy 9 leagues. Al alongst this coast men may anchor every where in 8 or 9 fathom, and with contrary winds stop the tydes, there goe strong tydes (especially in the spring) off the yeare of an Eb. Between the 3 Ilands and the crosse Iland lieth a point, upon which stand also 3 crosses, one by the other, which men doe mistaken oftentimes for the crosse-iland, but it is much smaller to see to. When you doe get sight of that point, there sheweth by it, as if there lay a shippe before the land with the topmast stricke. The right crosse Iland hath upon the north end 2 crosses, and upon the South end three, by al these markes they are good to be knowne one from the other.

Behinde the Crosse-Iland you may have road in 6 or 7 fathom, you may sail in behind it, as wel from the n. wards as from the south wards, it is there cleane & cleare every where, men doe anckor, that the great crosse doe stand from them n.n.e. there is the right road.

Southeast and by south from the 3 Ilands, and Ponnoy on the Russe side, there goeth in the Mesens golfe, into which commeth a great river, where men may go up to Kilda, and Kolmogro, and also another, upon which the town Slowoda lieth.

S.E. from Ponnoy lieth a litle Iland in the mouth of the Mesens golf, where you may have road under for welterly and S.w. winds,

The S. point of this golf is a low sandstrand, al grown with trees, there you may also anker alongst by the shore, but close by the land: if you lye somewhat off from the shore in 9 fathom, there the ground is foule, from thence a long, ft the shoore to the blewe point, it is all a faire strand.

From the crosse Iland to the blew or gray point, the course is f. w. 20 leag. In this fareway in the mouth of the white sea, there goe sometimes very strong currents, especially in the spring, through the terrible great flotsuts, of the melting of the snow, which fallet from both ids into the white-sea, & runneth through this strait into the sea, with great whir ing and terrible riplings. It happeneth sometimes that the current runneth there so terrible strong, to the w. wards in to the sea, that with a reasonable gale and full sayls, men can doe no more but item the tyde, whereof men must be mindful.

Gray point. Under the graypoint men may anckor on the southside, in ten, eight, or seven fathom, there it is good lying for easterly winds, a northeast wind commeth from the point the ground is there reasonable good, but not the cleanest.

From the gray point e wards to the Mesens golf the coast is all faire sandstrand, with some bancks of 2 fathom and an halfe, and 3 fathom alongst the shoare, not farre without the land, where sometimes the current falleth over, with great riplings.

From the blew point to the river of Arch-Angel, the course is S & by w. 13 leag. When as you sayle so towards the rivers, you shall then first espy the land a good wayes to the w. wards of S. Nicolas, it ariseth in a long strake, & then there riseth more land towards the rivers, as if it were a round land, afterwards you shal see the steple of S. Nicolas, when that standeth f. & by w. & f. f. w. from you, then you are open before the mouth of the river of Arch-Angel.

For to sail into the river of Arch-Angel. If you wil saile in there, then bring the steple of S. Nicolas a ships length and a halfe, or 2 ships length to the E wards of the crosse sandhil, keepe them so standing and saile right with them, untill that the wood within come mid wayes in the middlemoft Podeffemske, goe on then f. w. & by f & f. w. for to sail a weather of the tail of hould, which shooteth of from the east shoare, when as then the wood wil sit in (that is the wood upon the n.e. point of the river) cometh to the foothe amoft of the 2 woods, which stand upon the middlemoft Iland or the Podeffemske, then you are in the mouth of the channel, right upon the shoulders of the bac the markes of the taile are, when the wood cometh halfe wayes betwixt the southermoft & the middlemoft Podeffemske, when the point of the southermoft Podeffemske Is f. f. e somewhat southerly from you, then you are without the point of the w grounds If you bring that point no more easterly from you, you can take no hurt of that point. When you are entred the channel, then goe, as is beforesaid f. w. & by f. and f. w. until that the steple of S. Nicolas come a ships length by w. the Crosse sandhil, then further take the sounding of the w. shoare, & run in by it, towards the foot strand, & alongst close by it, without going of from it, untill that you come thwart of the white place, or spot, on the w. shoare, about the place where it standeth marked in the Card with A. Edge over then from thence e. & by f., & e. f. e right to the point of the wood on the e. shoare, add on f. e. in alongst by the east land, close alongst by the shoare, but thwart of the 2 Ilands which lye on the starboard side, it is a good wayes alongst the e. shoare from what foule and shoald, where of you must take heed, but go alongst by the e. shoare, untill that you come by the first river on the larboard side, edge then again to the w. shoar alongst f. f. w. until you com to the bight, there it is showld water on the east side.

When you are come in the bigt, then goe on E. S. east, and afterwards east and by S. towards the Stonereach, sail through there, amidst the channel, alongst by the buyes, which lye in the middest of the deepe, it is on both sides of the buyes uneven and rugged.

When as you come against the stone-reach there standeth a Fishers-house upon the w. shoare, by the litle River that runneth into the land, at the northend, or W. end of the stone-reach, thwart off that foresaid house lyeth a great stone under water, which you may saile about on both sides, it lieth about the middest of the fareway, as you come sailing on, men saile commonly about to the w. wards of it, all alongst by the west shoare, like as also through the stone-reach, for the west side is deepe enough, and at some places somewhat soft ground, but the east shoare is full of rocks.

When as you are past the buyes, then you must keepe of againe, somewhat from the shore. There was went to lye a litle Iland at the end of the stone reach, but that is of late yeares altogether skoured away with the Ice. When as you are now through the stone-reach, the course is first S.E. and afterwards f. e. and by f. until you come in the bight, then goe on e. f. e. and keepe yet to the w shoare, until that you see the steeple of Arch-Angel, then saile right towards it, but take heed the point on the larboard side, for it is foule. Arch-angel

For to goe from Arch-Angel further up the river to Kolmogro it is about 12 or 13 leagues most southeast, but the River runneth many wards with many crookked bights. Kolmogro.

For to saile out of the river of Arch-Angel, then run out by the foot strand, and keepe the founding of the w. shoare. When as you shal begin to see the steeple of S. Nicolas then bring it a ships length to the second or middlemoft Podeffemske, there lieth a black hommock upon the strand. The N. side of the wood within, cometh t en over that hommock, then goe on the N.E. and by N. and N. N.E., towards the Podeffemskes. When as then the wood within cometh to the N. side of the southermoft of the two woods, upon the middlemoft Podeffemske, then you are upon the shoulder off the baare. but when the point of the southermoit Podeffemske is S.S.E. somewhat southerly from you, then you are at the end of al the shoulders, and may goe your course through the Sea, where you please, no shoulds shall hinder you. For to saile out of the river. River.

From the Barre of Podeffemske, or from the river of Arch-Angel to the e. side of S. Nicolas it is 4 leag. There standeth a beacon on the end of the Iland, where the English house standeth upon, by w. that beakons is the reade for the English ships, in 6 or 7 fathom, according as they lye neare or farr from the shoare. The English River lieth to there E. N. E., and N. E. and by East, alongst by the Cloyster of S. Nicolas, but that is so shovld a river that no ships can goe into it, men must lade them without with Lodges. English River.

About f.w. & w & by w from the barre of the river of Arch-Angel lieth the Salt Iland, upon it standeth a Cloyster, & is saft to the main land. This Iad lieth of from thence to the C. Onega w. & by n.

From Crosse-Iland to Warsiga, the course is W.S.W. and W. & by S. about 24 leagues. Warsiga is a village, lying on a river, where is a Sammon-filling, which lieth into the northwar is within the land, you can not come into the river with shippes, there is no more then 8 or 9 foot water, but must stay without in the roade before the river, there is cleane sand ground, without any soule ground, so that you may anckor there without danger, so neare or farre from the shoare as you will. Warsiga.

This river men doe know (when they saile alongst the coast) by 3 high hommocks, which are higher then all the other, and almost of fashion like the 3 hilles by Bayonne in Galicia, to the N. wards of it are white sand-hills with trees upon them. Even by west the 3 foresaid hommocks goeth in the river.

For to saile from Warsiga to Ombay, the course is alongst by the coasts a litle west, w. and by n. and then w.n.w. afterwards the most N.W., unto the point of Tauria 36 or 37 leagues. About halfe wayes betwixt them, well so neare Warsiga as Tauria lieth on the coast a high barre hill, thwart of it and to the westwards of it lye some bancks, whereof you must take heed.

Point of Tauri. The point of Tauria is a high steepe point full of trees, to the e. wards of this land, the point falleth away into a great Baye farre alongst to the e. wards. About 5 leagues to the e. wards of the point of Tauria, lieth a rock, a good wayes from land, wich is not very great, but very good to be knowne, it sheweth a farre of, as if there sate a great Ape upon it, this rock the Russes call Tourie Babbe that is to say, Grand-mother of the point. Touri Babbe.

Within that rock in that foresaid baye it is all shoulde water, uneven and foule ground, where you may not anckor not have roade, but to the eastwards of the point Tauria you may anckor for westerly and northealy windes, somewhat to the northwards of the point in the bight, there it is should, but by the point it is deepe, there you must anckor close by the land.

Volna Oftroe. By the w. point lieth the Iland Volna Oftroe, by the Dutchmen called the Reeme Iland. From the point Tauria to that Iland, the course is N.N.W. 2 leagues.

Betwixt the Iland and the land of Tauria lieth also a litle Iland, betwixt these 2 Ilands, you may (for need) saile through with a ship, but it is very narrow, at the n. e. point of Ottroye is roade in 30 fathom, then you lie with the ship, (whed he lie wended to the Iland)

to eight fathome, so very steepe and rising is the ground there.

From Volna, Oltrove, or the Reeme Iland to the Gouda (that
Salt river. is the Salt river where men doe lade, lying a half league by E. Om-bay, the course is n. n. e. three leagues which lieth in north, and N. and by E., it is not very broad but deepe, at the comming in it is in the middeft 24, and 25 fathom, farre within, 5 or 6 fathom deepe, but there it is foule. Men doe commonly ancker a halfe league within the river on the eaft fide, with an ancker in the middeft off the river in fixteen or eighteene fathom, and with a cable on land, there it is good lying with all windes, except with a fouth S. Weft winde, which bloweth there open in.

About halfe a league to the weftwards of it lieth the fresh river
Om-bay. of Ombay, which is so fhould and foule, that men can not goe in there with fhippes, except they be fmall, and alfo the Ruffes are not willing they fhould come there, for not to fpoyle their Sammon-fifhing, there is great ftore off Sammon caught, which is carried from thence with boxes to the fhips in the Salt-river.

From thence the coaft lieth fomewhat alongft weftfouthweft and then upon northweft to Kandalex.

Thereabouts lye alfo more ladeplaces, where Sammon is caught,
Kierik-anick. as Kierickarick, and Cargapoll, that lieth fouthweft from Ombay,
Karga-pol. on the Koreels fide.

Can-de-noes. The C. of Candenoes & Orlogenoes lie n.e.& f w.47 leag. afun-der. The point of Candenoes is very good to be known, there ftand 5 great croffes upon it for markes. When as you fall with it, you may very well perceive, that the land falleth away, on the one fide to the f w. towards the white fea, and f e on the other fide. About 13 leag. to the e. wards of the C. de Candenoes lieth an Iland, called
Mor-fono-wits. Morfonowits, to the e. wards of it goeth a great baye into the land, but it is very fhould waters, with many fhoulds & dwalegrounds. It hath heretofore happened, that fome fhips have beene here loft, thinking that they run into the mouth of the whitefea, for it agreeth very neare with the courfe, & alfo with the height of the whitefea, but it is good to know by the land, and to difcerne one from the o-ther, for the Ruffe coaft to the eaftwards of Candenoes is altoge-ther a land with sandhills, and a flat ftrand, but the coaft of Lapland is high and hilly. In this bay goeth a river through the land, where you can com through with Lodges into the whitefea.

Thwart of this baye, about 26 leagues E., and E. and by S. from
Kol-guys. Candenoes lieth the Iland of Calgoya, being 13 leagues long, you may faile round about it, but upon the S. fide runneth a great riffe alongft the land: they that com from the eaftwards muft avoid it, for it is fait to the W. end off the Iland. Upon this Iland are great ftore of Geefe, which in the Sommer are altogether bare, or naked, without any feathers, which fit and brood upon one egge, which they have lying under them, and fo doe hatch their young one, which are there in fuch aboundance, that the Ruffes do e come there a fhoare with their Lodges, and lay a decle or boarde upon the land, & drive the Geefe wit ftaves, if to their boats or lodges, in fuch aboundance, that they fait then into Barrels, in great aboundance.

From Candenoes to t e Iland Tuffaria, it is eaft fouth about 42
Tuffa-ria. leages betwixt them both goeth in the foreland baye. By Weft weft Tuffera lieth the pointe of Swegefenoes.

From Tuffara to the river of Colcova, the courfe is eaft 7 lea-
Fiscl-gee-noes. gues, which is a good river, being twelve foot deepe, but there is
Kol-cova. no other trade, but that the Ruffes doe come there from Colmo-gro and S. Nicolas with Lodges, for to trade there, and to barter their wares the for Skins and other wares.

Pitfi-na. Seven leagues to the eaftwards of the river of Colcova, lieth the river of Pitfana, there is but 6 foot water, & is an unknowne place, but a litle to the w. wards of it lieth a fhould, which you muft avoid: Oliver Brunel in his voiage from nova zebla com on ground ther.

About 13 leagues to the e. wards of Pitfana lieth the river of Pit-
pifo-ra. fora, which lieth in f. f. e. by the e. point, and hath 12 foot water, the land is there low with fand-hills, and upon the weft fide ftandeth a Pack-houfe with fome croffes. When you come within the river, you muft edge up w. wards towards the Pack-houfe, and ancker there in 3, or 4 fathom, there is a great Haff, or broad water. You muft avoid the E. fide of the river, which is full of fands and banks. The litle towne of Pitfora lieth about 35 leagues within the land, there is great aboundance of coftly Skinues and Chriftall.

Olt-gyn, Betwixt Pitfora and Waygats lieth Oltgyn, and without the land lye 2 rocks or litle Ilands, the one called Orangien, and the other Grave Maurice, you may ancker under them in 6 or 7 fa-thom. From the fouthermoft fhooteth off a litle riffe, but you may found it wel. in 3 fathom.

To the eaft wards and to the weftwards of the two litle Ilands is a great bay, where it is fhould water, the land runneth there round to the point of Pitfora, al alongft in a bay of from Pitfora unto the Waygats. It is from Pitfora to Waygats n. e. and by e. 32 leagues.

Waygats, which is alfo called the Straite of Naffawe is a Straite,
Wa-ygats. where men may faile through into the Tartarifh fea, it lieth in firft about e afterwards n.e. through about 8 or 9 leag. about halfe wa-yes through lieth an Iland, which you may faile about on both fide
Trayn bay. & lide within the point, on the n. fide is a faire bay, which you may faile into fo deepe as you will, in 5, 4, and 3 fathom, good flicking ground, alongft by the eaft fhoare is the deepeft water, there you fhall lye fheltered for all winds and ice drifts.

Through this narrow or ftrait, hath beene divers times attempted, or undertaken, for to difcover, and to finde a way, for to paffe alongft to the n. wards of Tartaria, unto the right Kingdomes off Cathay and China, and fo fort to the Molucques, but in vaine because of the terrible ice that remaineth there the whole yeare through, and can never melt, by reafon of the continuall cold.

From the e. end of the ftraite waygats to baye of Oby it is e. f. e. Oby. and fe. and by e. 40 leag. To the e. wards of it that land lieth forth northeaft forty leagues more, to the two norther rivers, and then yet fo forth alongft northeaft but how far is yet unknowe.

The w. caft of Nova Zembla lieth to the n. wards of from Way-
Nova Zem-bla. gats to Coftintzarck n. w. about 53 leagues. To the n. wards of the land falleth away, about north and by eaft to the point of Langenes, or the States point, further N. N. E., N. E. and eaftnortheaft to the Iland of Orangien, the northermoft part off Nava Zembla, in the height of 77 degrees and an halfe.

Of the tydes and Courfes of the ftreames, about thefe foresayd places.

At the North cape a fouthwell moone maketh high water.
Thwart of the tanebay s fouthwell moon maketh high water.
At wardhoufe a fouthwell moone maketh high water.
At Kildayn an eaftfoutheaft moon maketh the highelt water.
At Seven Ilands a foutheaft moon maketh high water.
At Swetenoes a fouth and north moon maketh high water.

Alongft the coaftes to the eaftwards of the north cape the flouds come out of the n.w. and n.n.w and runs fo alongft the coaft of Lapland, unto Orlogeneffe.

At the 3 Ilands a fouthwell and northeaft moone maketh high water.
At Kannofe point an eaft and weft moon maketh the highest water.
Before Podeffemske and S. Nicolas an eaft and by fouth and weft and by north moon maketh the highelt water.
At the Iland of Nova Zembla a foutheaft moone maketh high water.

From Orlogenes and the 2 Ilands, the flouds fallet into the mouth of the whitefea, towards the graye pointe of Caffnoife about f.f.e. and f.e. and by. w.

But about the point of Caffnofe, the flood falleth into the white fea, partly towards Wvarfiga and Ombay, and alfo towards the Podeffemske and S. Nicolas.

To the eaftwards of Candenoes, towards the Iland of Colgeveyn, the flood falleth eaft and by fouth, as alfo alongft the fame Iland, and from Colgoyen towards the waygats, the tyde falleth eaft and weft. Alongft Nova Zembla, the tydes turne about with the moone alongft fouthand eaft, they come out of the weft and weftnortnweft, betwixt Candenoes and Pitfora, and fall fo alongft Ruffland.

The flouds towards waygats come from Colgoyen and Nova Zembla, and fall together eaft and by north through the Straite of waygats towards the River of Obye, fo that the ebs and flouds doe keep open a channel of waygats, that they are oftentimes, without ice, or at least but with le hat drives in fchooles.

But to the eaftwards of the waygats, the flood come out of the northeaft, and fall fo into the Oby, and into the Strait of Naffawe the water lieth and falleth, but keepeth no certaine tyde.

Of the Depths and grounds both the E. wards & W. wards of Waygats.

All the coafts alongft of from Candenoes unto waygats, men doe finde a flat rifing ground, the moft part land & left ground, he that muft fail there in milty weathers, muft know that in 8, or 9 fathom depth, he is 40 or 50 leagues from the coaft, but when it is 30, 35, or 40 fathom, then he is faire enough from the land. So it is alfo alongft Nova Zembla, and alfo over the eaft fide of waygats, but when you come before the ftraite, it w. beff eaftder by little and little.

How thefe Ilands lye one from the other, and from other lands.

From the north cape to the Northkyne, eaft and by fouth	13 leagues
From the Northkyne to the tanebay S. S. E.	10 leagues
From the tanebay or Hakkenf to wardehoufe, foutheaft and by eaft, foutheaft and fouthealt and by fouth	16 leagues
From wardhoufe to the point of Kegor f. e. and f. e. and by S.	10 leagues
From Kegor to Lata foutheaft and by fouth eafterly,	90 or 10 leagues
From Lata to the River of Kool fouth and by eaft, and fouthfoutheaft	10 leagues
From Lata to kildayn, foutheaft and by fouth eafterly	10 leagues
From kildayn to the point of Tiretbin y foutheaft and by eaft	5 leagues
From the point of Tiribiny to the feven Ilands, f. e. and by eaft	13 leagues
From Tiribiny to Swetenoes, the coaft lieth foutheaft and by fouth	40 leagues
From Swetenoes until 3 leagues paft Lombafeho foufhfoutheaft	16 leagues
From thence to Orlogenes fouth	9 leagues
From Orlogenes to the 3 Ilands fouth	3 leagues
From the 3 Ilands to Ponnoy, foufhweft and by fouth	3 leagues
From the 3 Ilands to the Groffe Iland foufhwest f. w.	20 leagues
From the Groffe Iland to Caffnofe, or the gray point foufhweft	10 leagues
From the Gray point to the River of Arch-angel fouth and by w.	13 leagues
From the Barre of Arch-angel to the Salt-Iland f.w. fomewhat wefterly	7 leagues
From the Salt-Iland to the C. Omega w. and w. and by N.	17 or 18 leagues
From the c. Omega to the Ilands Solofky N.w. and by w.	20 leagues
From the Groffe Iland to wardhus w. f. w. and w. and by f.	24 leagues
From wardhus unto the point of Tanna w. w. & by n., w. n. w. & n. w.	37 leag.
From the point of Tanna to Volna Oltrove, N. N. w.	2 leagues
From Volna Oltrove to the Gouda to the eaftwards of Ombay N. N. E.	3 leagues
From Ombay to Kandalex N. w. and by w.	13 leagues
From Orlogenes to the cape de Candenoes, the courfe is N. E.	47 leagues
From Candenoes to the Iland Kolgoye eaft and by fouth	16 leag.
From Candenoes to Swelgenoes 2 f. e. and by e.	19 leagues
From Candenoes to the Iland Morfonowits S. E.	13 leagues
From Candenoes to Tuffara it is E. S. E.	7 leagues
From Colcova to Pitfana E. and by N.	7 leagues
From Pitfana to Pitfora E. and E. and by N.	13 leagues
From Pitfora to VVaygats, the courfe is about N. E. and by E.	14 or 16 leag.
From Caffnofe to the Ilands of Solofky w. or fomewhat more fouterly	37 leagues
From Caffnofe to VVarfiga N. w. and by w.	16 or 17 leagues
From Caffnofe to P longi N. w. and by N.	21 leagues
From the Ilands of Solofky to Ombay in Lapland north	32 or 33 leagues
From Solofky to VVarfiga E. N. E.	32 leagues
From Solofky to Polonge N. E. and by E.	50 leagues
From Candenoes to Coftintzarck in Nova Zembla N.E. and by E. about	60 leagues
From the eaft end of Colgoyen to VVaygats E.	60 leagues
From Pitfora to the eaft end of Colgoyen w. N. w.	43 leagues

Heights.

The Iland Kildayn lieth in 69 degr. and forty minut. The point of Caffnofe or the Graye point lieth in 65 degr. f. Nicolas or the River of Arch-Angel in 65 degr. 30 minut. The Iland of Solofky in 65 degr. Ombay in 66 degr. 41 minut. Cape Candenoes 69 degr. 30 minut. The Iland Colgoya in 69 degr. 10 minut. The River of Colgova Pitfana, and Pitfora lye in 68 degr. 30 minut. VVaygats or the Straite of Naffow lyeth in 69 degr. 43 minutes.

The

The first part

THE THIRD BOOK

OF THE

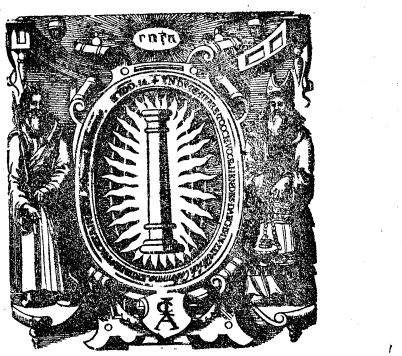
FIERIE-SEA-COLVMNE,

WHEREIN

The Description of the whole

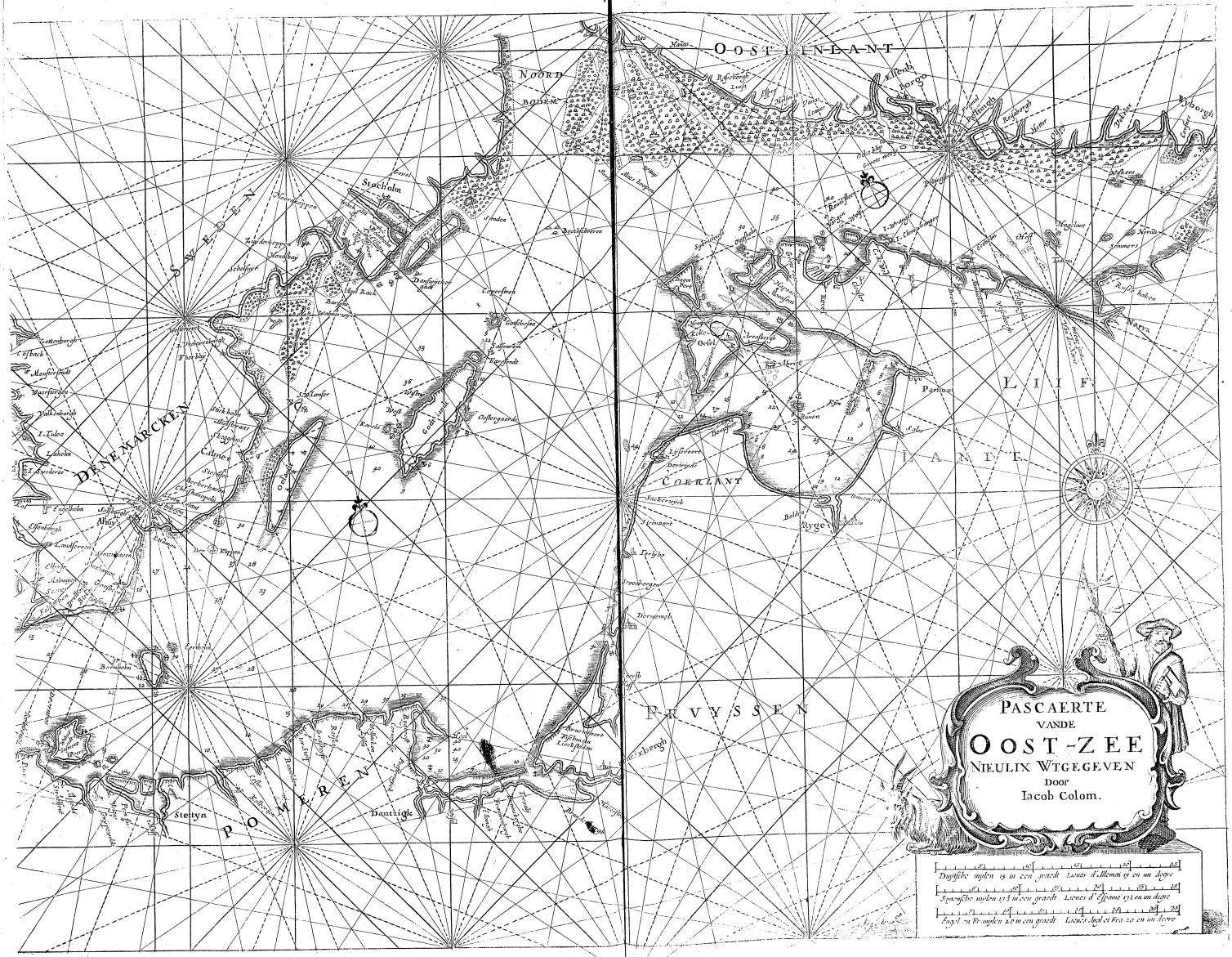
EAST-SEA.

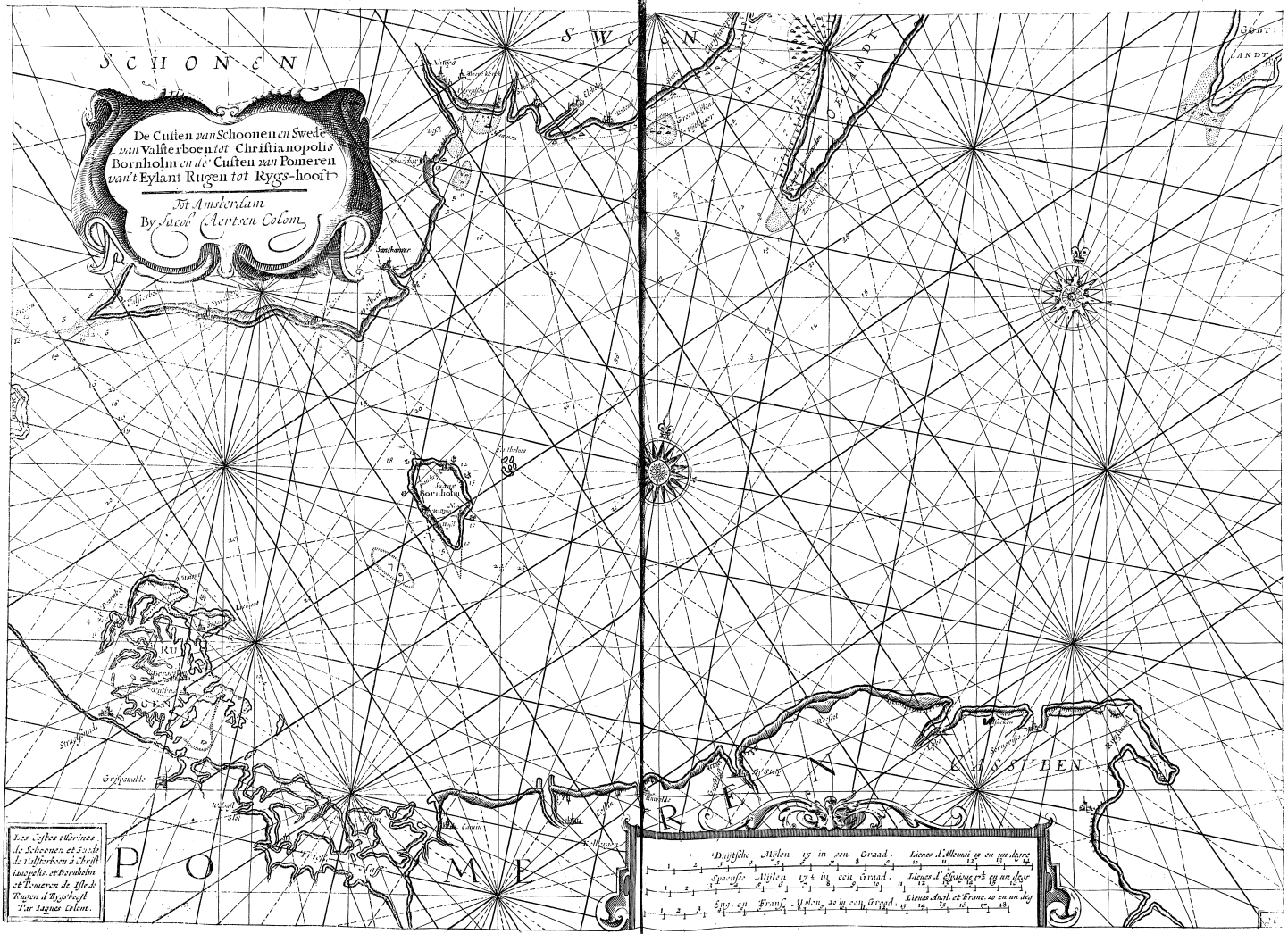
VVith priviledge of the High and Mighty Lords, the States Generall, for twelve yeares.



Printed at Amsterdam,

By Iacob Columne, on the water, in the Fierie Columne,


OOST INLANT
NOORD
BODEM
SWEDEN
Stockholm
DENEMARCKEN
Elsenoor
Malmoy
Ystadt
Ahuys
Calmer
Oelant
Gothlant
Oostergrondt
Dantzigh
Stetyn
POMEREN
PRVYSSEN
LIFLANT
COERLANT
Parnou
Baltis Sea
Wyborgh
Nerua
Narva
Peipus
Pascaerte
vande
Oost-Zee
Nieulix Wtgegeven
Door
Iacob Colom.
Duytsche mylen 15 in een graedt
Spaensche mylen 17½ in een graedt
Engel: en Fr: mylen 20 in een graedt


SCHONEN
SWEEN
De Custen van Schoonen en Swede
van Valsterboen tot Christianopolis
Bornholm en de Custen van Pomeren
van't Eylant Rugen tot Rygs-hooft
Tot Amsterdam
By Jacob Aertsen Colom
Santhamer
Bornholm
Rugen
POMM
Deutsche Mylen 15 in een Graad. Lieues d'Allemai ge en un degré
Spaense Mylen 17½ in een Graad. Lieues d'Espagne 17½ en un degré
Engs. en Franse Mylen 20 in een Graad. Lieues Angl. et Franc. 20 en un deg
Les Costes Maritimes de Schoonen et Suede de Valsterboen à Christianopolis, et Bornholm et Pomeren de Isle de Rugen à Rygshooft
Par Jacques Colom.

The third part of the Firie Columne,

THE THIRD BOOKE,

Of the

EASTHERN and NORTHERN NAVIGATION

Containg

The description off the Whole East Sea.

The first demonstration.

Where in are described the Sea-coastes off Vlsterboen to Christianopolis, and from the Iland Rugen to Ryghs-head.

Elburgh.

Ou men shal saile about the riffe of Fasterborn hath been here before rehearsed. The Coast from Fasterborn Eastwards lieth most East and by North, somewhat Northerly. First from Fasterborn to Elburgh are 3 leagues. If you will anckor before Elburgh, then bring the Cloyster and the Church within a fathom or a fathom and a half near one to the other, and saile so right in unto the town, you may anckor by it in 4, 3, or 2 fathom and a halfe.

Wstee.

From Elburgh to Wstede are seven or eight leagues. Betwixt them both about three leagues to the eastwards off Elburgh, and five leagues to the westwardes of Wstee is a pointe off from which lieth a shoulde, come no nearer it then eight or nine fathom, Wstee lieth in a bight, and hath a high sharp steeple. If you bound there, then bring the steeple north from you, and then sayle in right with it towards the strand, there standeth a red tiled house to the eastwards of the bridge, bring that house and the end or the bridge one in the other, and saile in so, and runne to the westwardes of the bridge, and anckor there in 3 fathome, or two foot lesse, there is cleane sand ground. When you come from the west, and are past that forefaid should, then you may bodly runne alongst by the shoare in 3 fathom and a half, without feare.

Three leagues to the eastwards of Wstee lieth a high point Goesbeer. called Goesbeer, from thence to the Sandhammer is a leag.

From the point of Goesbeer runneth off a great shoald farre to the leawardes, and lieth alongst the coast, unto neare Sandhammer, you may found it in 6, 8, and 10 fathom, as you will. When you runne over it in tenne fathom, then lieth the north-end of Bruntholm about east from you, and the point of Sandha- Sand-hammer northnorthwest. Under the Sand-hammer is mer. good anckoring for a west, westsouthwest westnorthwest, and northwest winde, in 5 or 6 fathome. When you come out of the northeast, you may runne along by this Coast, with a northwest winde, in 7, 8, 9, or 12 fathom, untill past Goesbeer, for to avoid Bruntholm.

The point of Goesbeer and the north end of Bruntholm lye northwest and by west and southeast and by east about 5 leagues afunder, but Wstee and the forefayd north end of Bruntholm northwest and southeast 8 leagues afunder.

For to saile from Fasterborne about to the northwards off Bruntholme you must go on east, so long untill that you have the length off Wstee, then forth east and by north, and then you shall saile yet neare enough to the pointe and shoulde off Goesbeer, come no nearer it then seven or eight fathom. But to saile from Fasterborn to the southwards of Brontholm, the course is east and by south, two and twentie or three and twentie leagues, and alongst the southside off Brontholme Eastsoutheast.

Bront- holm.

The Iland Brontholm is clean round about, except on the southeast point, there runneth off a foule riffe, called Brewers rif, which men must avoyde. On the northeast side you may runne alongst by it upon your lead, without doing amisse, in 12 or 13 fathom, and alongst the southwest side in 8 or 9 fathom.

Roade under Bront- holm. Rottum.

Men may anckor round about Bronthollom, at divers places, before Rottum, & to the northwards, before the Castle, thwart of Sandtwick, Snaux and Nex.

Before the Village, betwixt Rottum, and the Castle that standeth upon the northwest point, is a good anckoring for an east or northeast winde, in 13, 14, and 15 fathom, but not verie cleane ground.

Thwart of the Castle it is good lying for an eastnortheast, east, and eastsoutheast wind in eighteene and twentie, and also fourteene and fifteene fathome, sand grounde, but nearer the shoare the ground is not verie cleane, the nearer to the shoare the fouler ground.

Under the northwest pointe before Santwyck there is good Sandwyck anckoring for southwest windes, and you may come neare unto that point. From the northwest point to the other pointe the shoar lieth eastsoutheast and westnorthwest. Nex

On the east side is good anckoring before Snaux and Nex: but before Nex it is not verie clean. By Nex runneth off a little riffe from the shoare, which is steepe on both sides: but if you come no nearer it then in tenne fathom, you can take no hurt of it: to the northwardes of Nex lieth also a great rock. He that will anckor before Nex, let him anckor so, that the flat steeple which standeth above Nex, doe stand betwixt the west and west and by south from him, and that the north pointe be north and by west, and the south point be southsouthwest from him, there it is two and twentie fathom deep, and cleane sand ground. An many other places it is otherwise stonie and rough ground, with southwest and west winds you have there a weter shoare.

The Eartholmes lye from the north-end of Bruntholm east and by north and west and by south foure leagues asunder, and from the southeast end south and north five leagues. In the Eartholms a little haven, but by reason that is not used it is unknown.

Betwixt the north point of Bruntholom and the pointe off Shoulde Sand-hammer, but nearest to Bruntholom lyeth a shoulde off by Bront- six fathom, where sometimes Fishermen doe lye to fish, it is holm. not verie great, but hard stonie ground.

From Sandhamer the coast lyeth northeast and by north a league to Somer-haven, this a round bay, within it is very good anckor ground. From thence the coast lieth about north five league unto Ahuys. From the north point of Brontholom to Ahuys, the course is north somewhat northerly about ten leag. But to Hanno north, betwixt 11 or 12 leagues.

Ahuys lieth upon a river, where sometimes is before the towne 10, or 11, and sometimes also no more then 4, or 5 foot water, according as the water commeth out of the land, upon it is a great fishtug, where in the Sommertime are great store good fish taken. To the eastwardes of the mouth of the River runneth of a stony flat from the shoare, and to the southwards of the river a foule stony riffe, right off from the shoare alongst by the forefaid flat, so that there lieth a channell betwixt the forefaid flat and riffe, which is called the Eastergat.

Through this forefaid riffe lieth in a channel untill into the Eastergat, on against the flatte, which is called the Southergat. If you will sail into this southergat, comming from the southwards, then runne to the west shoare to the southwards of Ahuys, untill you come in 5 or 6 fathom, & then you shal see up on the north shoar, north and by west or somewhat more westerly from you, a cape or beakon standing a little from the strand within the land, of fashion like a mill without wrings: Bring this beacon to the W. side of the high hill, which lieth somewhat further into the land, to wit, even in the going of the highest of the hil, keepe these markes so standing, and sail in rigt with them, until that Ahuys commet over that tree, which standeth there at the Northend of the wood, or that the white Countrie church come to the N. wards of the little houses of Ahuys, then goe on N.w. or bring that foresaide white countrie-church in a little valley, a little to the N. wards of an old ruined castle, whereof there standeth yet some of the walls upon the northside of the River, and sail so on, untill that Ahuys come to stand in the middest of the River, anckor there in two fathom and an halfe, or 3 fathome, there is the roade there can goe no sea. In this southergat it is two fathom, 2 fathom and a half, and sometimes also at least 3 fathom deep.

Eastergat Ahuys.

For to saile into the Eastergatte, comming from the southwards keepe in fixe or seven fathom, and runne so the North shoare, and then you runne alongst without the riffe, that lieth of by south the rivers mouth from the west shoare untill that Ahuys doe stand right west from you, then there commeth a great tree to the north side of the wood, that standeth upon the west shoare, keepe that so standing and runne in right with it, untill that foresaid countries-church come to that aforesaid old peece of wall, of the old ruinous Castle, and then right in, as hath beene before said. Or runne in by the first marckes, untill within a shot of a caft peece neer to the west shoare, and then edge up to the north shoar, untill that Ahuys come in the middest of the river, and anchor there, as hath is been faid.

Hanno.

Hanno is a litle high round Iland, which men may faile round about, under it is good roade for south and southeast windes.

Behind Hanno runneth up a litle River to Selsbrough, but serveth onely for small ships or Crayers, which go not deepe.

Flehoim, Rottenbuy

From Ahuys to the Rockes the course is east and by south twelve or thirteene leagues betwixt them both lie divers little townes, as Flehoime and Rottenbuy, where men may anckor before, in fixe, seven, and eight fathom good anckor ground. And other havens more, but litle or nothing knowne by Hollanders, Thwart of Rottenbuye lieth a great Rocke somewhat of from the land, calle dMalqueren, under which men may also ride.

From the north point of Brunthollom to the Rocks the course is northnortheast fixteen leagues, but from the point of Sandhamer east northeast 17 leagues If you runne alongst close by the north point of Brunthollom, you shal run with a northwaye, alongst even with the rocks: but if, of you run alongst close by the point of Sandhammer, and will faile from thence to the Rocks, you shall with a northeast and by east waye fall with the land even within them, or to the westwards of them.

The rocks

The Rocks are foure little rocks together, which men may faile round about, but can have to Roade under them; they lie 3 or 4 leagues distant from the maine land, and are smaller then the Eartholmes.

A league or two to the northwardes of them lieth the Vrouwen or Greene Iland, by some called the Rough-iland, and also the Outliers: It is not fo baocken in it selfe as the Rocks, and also much greater, of to feawardes from it, lie some rocks, to the westwards of it, it is al full of rockes, some above and some under water, alongst even fast to the land, you may faile about within the Greene-iland betwixt, it and the rockes, but no man can doe it, but he muft be verie well acquainted there, and then also not without great daunger. To the Southwardes of it you may also finde Roade at some places, but you muft be verie wel acquainted, and also not without daunger, by reason of the multitude of suncken Rocks and sharp grounds. The east side of the Outliers lie from the rocks northeast and by north. The South end of Oeland is a sharpe peinte, and lieth from the rockes east and west about eight leagues diftant. Thwart of it, betwixt the maine land and the aforesaid Southpointe of Oeland, it is about four leagues broad, betwixt them both goeth in the Calmer-founde.

For to faile up into the Calmersound, then goe on from the rockes, or from the Outliers northnortheast, and then you run in betwixt Oeland and the maine land, faile in there betwixt them both, a middeft the channell, both the shoares are verie foule but if you come not nearer them, then in seven fathom, you can take no hurt there.

From the Rocks to Calmer are fifteen or sixteene leagues: About halfe wayes betwixt them, Northwest from Southerorden, the southermoft point of Oeland lieth the towne of Christianopell, lately buiied there upon a little Ilands by Kings Majestie of Denmarcke, and so called after his name. Thwart of it was wont to lie upon the maine land a little town called Overschare, now it is one with Christianopel, thwart of it lieth a ledge of rockes about a great English mile of from the shoare southeast into the sea, come no nearer it then in 10 fathom.

Christianopel.

Overschare.

At Christianopel is a haven on the east side, from it lieth off a riffe towards the northeast into sea, therefore he that will saile in there, muft come in from the northwards for to avoide this riffe.

To the northwardes of Christianopel towardes Calmer, it is on both sides (as well on the side of the maine land, as on the side of Oeland) all full of rocks and foule grounds, but you may found both the shoares: in the middeft betwixt both in the farewaye, it is tenne and twelve fathom deep, all foft claye grounde, to the fouthwards of Christianopel it is deeper, but to the northwards towards Calmer it is by little and little shoulder.

Two leagues to the northwards of Christianopel lieth Berckenhaven, there men doe lade oken beams, there within it is ker haven, there men doe lade oken beams, there within it is good lying, but verie badde for to come in or out, because off the multitude of suncken rockes, and other foule grounds, which lie before it about a half league of from the shoare to Seawards.

Berckenhaven.

Aboute a league to the northwardes of Berckenhaven lieth Hofmes ground, which is a verie bad foule ground, lying some what farther off from the shore to Seawards, then the other rocks which lie alongst the shoare, thereof you muft take heede.

Hofmes ground

About a league to the fouthwardes, and two leagues to the northwards of Hofmes grounde lieth a point called Steenfoe, which is a somewhat high rough and verie foule point, a halfe league long, lying within, a halfe league neare to the towne, to the westwardes of it runneth in a great bight, where is good lying also for many shippes, but you can not come in there, because of the manie foule grounds and dangers, except it be with a verie skilful Pilot: upon the west side, over against the pointe standeth a white houfe. The King off Denmarcks armie of ships laye there, in the time of the last siege of Calmer.

Steenfoe

When you come so farre in, that you leefe the fouth end of Oeland out of your fight, then you gette the Castle of Calmer in fight, faile towards it but shunne the shoares, as hat been faide here before. The Caftle hath four great towres, when the two eastermoft of the four come one in the other, then is the Castle about northwest from you, then you come by the Grimschaer, this is a Rock good to be knowne, upon it standeth a maft, with a Barrell upon the toppe of it, which lieth much nearer the west shoare then Oeland, when you get it in fight, then faile towardes it. Thwarte of the Grimschaer or Tonholm lieth a suncken rock, about a cables length of from it, and a little more to the eastwards, upon it is no more then five foot water.

Castle off Calmer.

The farewaye is through, betwixt this suncken rock and the Grimschaer about northeast and by north, faile close alongst by the Grimschaer, leaving it on the larboard side, and then the foresaid suncken Rock remaineth on the starboard side of you.

Being a litle peft the foresaide suncken Rock, and Grimschaer, you come then on against the west end of a long small rock, which lieth farre to the eastwards, towards Oeland, and lieth almoft even with the water, at some places a little above water, and at some places the sea runneth alongst over it, edge then a little up to the northwards, and runne about by the poin of that rock, being past that, you shal meet on the larboard side afow rock, from the which there shooteth of a little raile to the northwards, upon it standeth a little beacon, faile alongst by it, and being a little past it, then shall the towne lye westsouthwest from you, let your anckor fall there in five or sixe fathom, there is the right road. If you come to anckor somewhat northerly in the roade, you muft be care full to take heede of a suncken rock which lieth no more then eleven of twelve foot under water.

Roade under Wittmodt.

Suncken-rock.

The markes of this suncken rock are these: When the milles upon the Mulholm are one in the other, with the mill which standeth on the north side without the towne, then you are thwart of the foresaid suncken rock; On both sides of it, as wel to the northwards as the southwards of it, it is deep enoug. It is good lying there, almoft with all windes, but a north and by east winde is the worst, which bloweth there in open. With shippes that go not deeper then sixe or seven foote, men may come to lye at the bridge before the towne.

You may also faile to the westwards of the Grimschaer: that is, through betwixt the Grimschaer and the land, with shippes that go no not deep, but he that shall doe it, muft be verie well acquainted there, for there it is all full of Rocks, fome above and some under water.

From the southend of Oeland, called Southerorden, lieth of the riffe a great dangerous riffe a league and an half into sea, there it is seven and eight fathom deep, when the Chappel upon Southerorden is northwest a great league from you, there it is ten and eleven fathom deep; you may sounde about this riffe in eight or nine fathom, but it is not good to come nearer it, when you can doe otherwise, and can passe it.

of fouther orden.

The east Coast of Oeland is a cleane Coast, and lieth north northeast, and southsouthwest.

Of the Iland Rugben.

To the westwards of the Iland Rugen men doe saile up into the Ielle unto Straelsound. For to fail from Straelsound out alongst the Ielle, goe on north, and north, and by west, there lieth

For to faile out at the Ielle.

lieth a Middle-ground, sometimes there standeth a beacon upon it, and sometimes not, leave that on the larboard side, being past that, saile to the point where the wood standeth upon, so that the town come behind the wood, you shall then see a verie high tree, bring that over the flatteft steeple, and keep it so a while standing, going on still north, and north and by West unto the beacon the Ielle. When as you lose up about by it West, then looke out for two trees, which stand upon the east shoare, some what with in the land, bring them a ships lengt without the highest tree, which standeth upon the shoare, and loose up aboute the beacon, towards the buye. In the mouth of the deepe lie 3 buyes, which in sailing out you muft leave all on the larboard side, but in sailing in all on the starboard side. It is not deeper in the mouth of the Deepe then 6 and 7 foote, and also without, it is farre of shoulde Water.

The Iland Rugen hath four points that lie out, under which men may ride at divers places, as Doornbosch, Witmondt, Iasmondt and the Peert.

Doornbosch.

The pointe of Doorenbosch lieth from the Ielle north and by west diftant two leagues, it is high land with a steepe point, men may ride under it for northeast, east and southeast windes. If you will anckor there, then anckor in 3, 4, or 5 fathome, so that the steepe point stand northnortheast from you, or that the Church stand over the point, or anckor where about that it shall please you, or shall be best convenient, it is there al over shallow Water and clean sand-ground.

From Dornbosch to Brontholme, the course is northeast and by east, 17, or 18 leagues, but Dornbosch and Fasterbroucs Riffe lie northnortheast and southsoutheast, fourteene leagues a sunder.

From Dornbosch to Witmondt, the course is northeast and by east four leagues. Betwixt them both goeth in a great Bay, where you may run in alongst by Witmondt, and have roade there in five or six fathom, for southwest, south, and also for and east winde.

Roade under Witmondt.

If you will secke roade under Witmondt for westerlie windes, and runne about by the point comming from the Westwardes, then come not nearer the point, then seven or eight fathom, there shooteth of an uneven shoulde, which you muft avoide, being come about the point, anckor there in twelve, thirteene, or fourteene fathome, that is about a league from the shoare, nearer to the shoare in 7 or 8 or tenne fathom, the ground is not cleane, in twelve fathome you have grosse sand, in thirteene or fourteene fathome soft ground, so that with harde windes you should neede to shoe your anckor, you lie there also landlockt for a west and south winde.

Iasmondt lieth from Witmondt east southeast distant three leagues.

Roade under Iasmondt.

If you will anckor under Iasmond, for a west or Westnorthwest wind, then faile so for about the point, that it come to be northnorthwest, or somewhat more northerly from you, when you come about the point, you shall see in the foutwelt or somewhat more westerlie from you, a litle thick wood of trees, upon a plain hill, and on each side of that little wood, a little sharpe steeple, and also a great tree, like as if it where a mill without wings, when that tree commeth to be Southwest, and by west from you, anckor there, in 9 or 10 fathom, there is in different ground, according as the grounde is there, by the point of the land, it is about 13 fathom deep.

Or bring the north point northwelt, and the other point southwelt and by south from you, and anckor there in tenne or eleven fathom, there it is good soft ground, but it lasteth not long, so soone as you finde the soft ground you muft let fall your anckor, for the ground is there at manie places not cleane, or you muft faile farse about both the points, there you lie landlockt for a northwelt, and northwinde, in 10, 11, or 12 fathom, good soft ground.

The Peert, which men doe also call the great Buck upon Iasmondt, is a tuffe of 3 or two, and is a pointe that lieth out with two points, where is betwixt them both a faire Sand-bay, where is good lying in 4 or 5 fathom clean ground.

the peert.

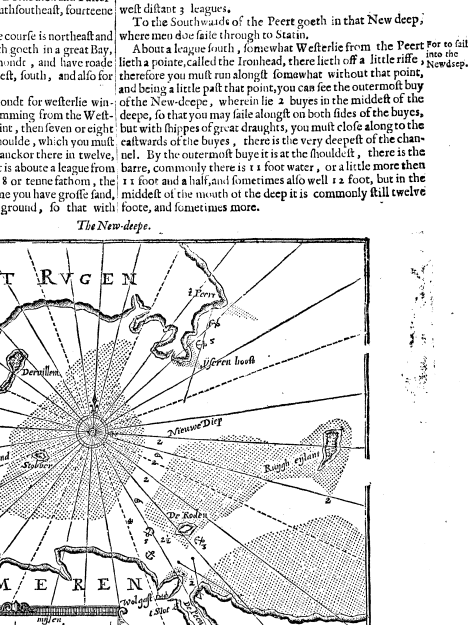
Iasmondt and the Peert lie southsoutheast and northnorthwest diftant 3 leagues.

To the Southwards of the Peert goeth in that New deep, where men doe faile through to Statin.

About a league south, somewhat Westerlie from the Peert lieth a pointe, called the Ironhead, there lieth off a little riffe, therefore you muft run alongst somewhat without that point, and being a little past that point, you can see the outermoft buy of the New-deepe, wherein lie 2 buyes in the middeft of the deepe, so that you may faile alongst on both sides of the buyes, but with shippes of great draughts, you muft close along to the eastwards of the buyes, there is the very deepeft of the channel. By the outermoft buye it is at the shoulderst, there is the barre, commonly there is 11 foot water, or a little more then 11 foot and a half, and sometimes allo well 12 foot, but in the middeft of the mouth of the deep it is commonly ftill twelve foote, and sometimes more.

For to fail into the New-deep.

The New-deepe.


EYLANDT RVGEN
Vyerry
Ch.
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't Groen hooft
Dernholm
Nieuwe Diep
Rough Eylant
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the eastermost a handspikes length without the westermost (for to avoid a stonie should, which runneth off from the West point of the Peen) untill that you come before the Peen. Upon the east shoar stand two beakons, being them one in the other, and run so into the Peen, which lieth in first Southwest but in the comming in, there is no more then sixe foote, or six foot and an half water.

Roade under the Roeden.

If you will anckor under the Iland the Roeden, you must be mindfull of a little riffe, that lieth off from the Roeden to the Southwards, towardes the maine land, and anckor there, either to the westwardest or to the eastwardes off it, accordings as the winde shall be, in three fathom, or two fathom and a halfe, so should e or deepe, as you please, there is the common roade for the ships.

Rough Iland.

The Rough Iland lieth from the Roeden northeast and by east distant about two leagues.

For to saile out of the eastwards off the Roede

About eastnortheast from the Roeden lieth also a Channell into the sea, a litle to the southwardes of the Rough Iland, that is good for to runne out with westerly windes, when you can not come out at the Newdeepe, & also for those that are bound to Dansk, or to the eastwards. From the Rough Iland lieth of a little riffe to the southwardes, which you must avoid, and runne through betwixt that & the shoulde which runneth from the shoar, thwart of it is the barre or shouldeft of this Channell not lesse then eleven or twelve foot water, that is a short out let, being over you shall gette presently deeper Water. This Channell is Pilots water. Upon the Iland the Roeden dwell Pilots, which doe bring out the shippes there. The coast off Pomeren lieth from the New deep to Colsf bergen east and west about fifteene or seventeen leagues.

Camin.

Betwixt them both lye yet two channels, the Swinne, & the Channell of Camin. The Swin lieth seven leagues Eastwardes from the Newdeepe, which runneth through with a little river into the Haff or broade water, right over againtt the River of Steryn. Camin lieth five leagues to the eastwardes of the Swin, upon the east end of the Haffe or broad water of Steryn: that Channell goeth through also with a river into the Haff.

Banck.

Four or five leagues without the land, when Iasmondt is west, or thereabout, the Peert westfouthwelt, and the Rough Iland southwelt and by west from you, there lieth a banck off seven fathome, upon one place somewhat lesse, and upon an other somewhat more, betwixt it & the land towards Iasmondt it is again thirteen, fourteene and 15 fathome deep, but to the eastwardes of the Newdeepe, alongst by the coaste of Pomeren, it is all shoulde water, of four, five, sixe and seven fathom, so farre into the sea, that when you can but even lee the land of the Swin, there it is not deeper then seven or eight fathom, without fight of the land it is 12 and 13 fathom deep.

Colbergen

The New deepe and Colbergen lye east and by north and west and by south 16 or 17 leagues alunder.

The Haven of Colbergen you must saile into between two heads, untill you come before the towne. Within in the River, right over against the town, lieth a Well or Brook which can give all the countrey thereabout salt, of water which they seeth, and yet the water of the river is fresh as Milk, for it is a little water that commeth out of the land. The coast off Pomerland lieth from Colbergen to Gasshead eastnortheast and westfouthwelt aboute 13 leagues, betwixt them both lie two havens more, to wit, Coslyn and Ruwolde.

The haven of Coslyn lieth from Colbergen northeast and by east four leagues distant. And from Coslyn to Ruwolde, the course is northeast and by east five leagues. Into the haven of Ruwold, or the little river, called the Wipper, an indifferent ship may go in. It is from Ruwolde to Gesshead northeast and by east four leagues.

The Stolp

The land lieth from Gasshead to the Rofehead east and east and by north 19 or 20 leagues, betwixt them lye the havens off Stolp, Liba, and Sernevis.

A little to the eastwards off Gasshead lieth the haven of the Stolp, which is a River so called as the towne, which runneth up to the same towne, onely for small ships, although that there doe indifferent great ship lade.

From Gasshead unto Reefcoll it is all a white Strand, and lieth eastnortheast from it foure leagues. Reefcoll is a high round hill very good to be knowne, when you come off from Brondrholhom. From Reefcoll to Liba is 7 leagues.

Liba Sernevis

Liba lieth upon a great river, called the Offe. From Liba to Sernevis are five leagues, betwixt them lye the three Woolfacks, which are three black tuffens of trees, where by this land is very good to be knowne, a little to the eastwards off the fe three litle hommocks lieth a long hill which doth shew it selfe (when you come out of the west) on the west end divided into three or foure little hommockes. Seven or eight leagues to the eastwards off the Woolfackes followeth the high land off Rofe head, which is very steep upon the water-side. Betwixt the Rofe-head and Reefcoll it is all white strand, and moft of the land grown with trees.

Sernevis

Sernevis is a little towne lying upon a little off-water which with a little river runneth into the sea, but whitin, it doth spread it selfe into a great river. It is from Serveuis to the Rofe-head four leagues.

You may found aboute the Rofe head in 15 and 20 fathom, and also you may well anckor under the Rofe-head, there is better ground then under the Heel. All the strand off Pomerland is alongst the sea side above all black with trees.

Of the Depths.

In the farewaye the northwardes of Brontholhom alongst to Rye, it is deep betwixt Oeland and Bronthollom five and thirtie, sixe and thirtie, and eight and thirtie fathome, but comming against Oeland, so that the south end come to be northwelt and by north, northwelt, and northwelt, and by welt five or fixe leagues from you, there you shall finde verie uneven grounds. Southeast five or fixe leagues from Southerorden, are grounds of nine, tenne, twelve and fixteene fathome, in the nine and tenne fathome soft ground, that there remeineth notthin upon the lead, but in the fourteene or fixteene fathom, it is grosse pebble and black stonie fand ground, almoft like gettes. Nearer againe to Oeland it is againe deeper water, and farther from the land it is also deeper, but al uneven ground; the fouth end of Oeland, being about northnorthwelt from you eight leagues, there it is againe fometimes twentie, fourteene and also well tenne and nine fathome in the shouldelt deepe, all ftonie ground, that there remaineth nothing upon the lead, but in twentie and five and twentie fathome go fie red and black ftonie fand. He that fayleth with a northerly wind over these foresaid shoaldes, of teen, eleven and twelve fathome, and is bound to Bronthollom, let him goe on westfouthwelt, for to fayle clear of Brontholm, if he reckon to come againtt it by night; the Bleefche fide he may bouldly runne to by the lead in feventeene and eighteene fathome. The point off Sandthamer runneth farre of flat, at bath ben faid here before, you may runne about by it in 7 and 8 fathome.

Berwixt the Rockes and Oeland, in the farreaye to Gotland it is eight and thirtie, and nine and thirtie fathome deepe, safe clayе ground.

When Southerorden is northnorthwelt, fomewhat northerly a league from you, there it is 13 fathom deep.

When the little chappell upon Southerorden is westnorthwelt from you two leagues, there it is thirtie fathom deep.

When Southerorden lieth Welt two greate leagues from you, there it is seven and twentie, eight and twentie, and nine and twentie fathom deepe.

Betwixt Falterborne and Brontholme it is thirtie, and five and thirtie fathom deep, in the fareways, but when you beginne to come neare Falterborne, there it is shoulder water of 14, 15 and 16 fathom.

When you (comming from the West) faile alongst by the south fide of Brontholm eastfoutheaft about a league without the land, and that the eaft ende of Brontholme is eaft, fomewhat foutherly about two leagues from you, there it is deep 7 or eight fathom groffe pale fand, that lafteth untill that the forefayd eaftende be eaft, & eaft and by north aboute a league and a halfe from you, all in one depth, but when it commeth to be eaftnortheaft from you, it is fifteene fathome deep, small balckish fand ground.

Four or five leagues from Brontholme, when the eaft end (from which Brewis-riffe runneth of) is aboute eaftnortheaft or northeaft and by eaft, and the northende aboute north, or north and by eaft from you, there lieth a banck of feven, eight or nine fathome, and lieth northwelt and foutheaft more then a great league long, the fouthermoft ende lieth about fouthwelt from the eaft ende of Brontholme. He that meeteth with this banck by night, may make fome geffing thereby, for to direct his courfe thereafter, wheter he be bound eaftwards towardes Reefcoll, or towards Falterborne.

Aboute two leagues eaftfoutheaft from the aforefaid eaft end of Brontholme (to wete, the lowe fand point, where Brewers-riffe lieth of, of there it is four and twentie and five and twentie fathome deepe, ftonie ground.

About four leagues eaft, fomewhat eafterly, or Eaft and by North from Meun, lieth a banck of eleven and twelve fathom, which lafteth from thence with a northwelt and by weft courfe, untill that Meun come to be weftfoutheaft, or fouthweft and by weft from you, then it is again eighteen, nineteen, and twentie fathom deep, foft ground.

Falter-

Falterborne shall then be N. N. W. and Sreden W. N. W. from you, going on with that fame northwelt and by w. courfe, you shall then get by little and little shoulder water, to twelve, fixteene and thirteene fathome, and clofe by Steden fourteene, thirteene, and twelve fathome. He that commeth from Wismonde or Iasmondt towards the Sound, and runneth alongft 4 leagues without Meun, runneth alongft over this foresaid banck, he that findeth him selfe by night upon it, hath a good marke for to make his reckoning thereafter.

Betwixt Bronthollom and the coast of Pomerland, in the fareway, when you can feel bronthollom, it is 26 fathom deep, but to farre to the S wards that you can see the coaft of Pomerland, there it is 7 and 8 fathom deepe, but without fight of the land 12 and 13 fathom deepe. Alongft all the coaft of Pomerland betwixt the New-deepe and Rofehead, it is alongft by the coast 22 and 20, and also well 25, fathom deep.

Betwixt Colsbergen and Garthead it is all flat even ftrand & ground, without any bankes. In the fareway betwixt Brunthollom and Reefcoll, it is 27, and 28, fathome deep, but farre to the northwards of it, it is at least 37 and 38 fathom deep.

Northwelt from Reefcoll 4 or 5 leagues from the land, lieth a banck of 9, 10, and 11, fathom, when you come from Brunthollom, and Reefcoll commeth to bee fouthealt and by eaft from you, then you come againtt this banck, and endeth when Reefcoll is fouth and by eaft from you.

From this forefayd banck towards Brunthollom, it is 25, 30 and 36 fathom deepe, foft clay ground, but towards Reefcoll it is fhoulder.

If you eall the lead often, fayling alongft that coaft you fhall finde more banckes.

You may boldly faile alongft this coasts by night, or darke weather in 8, 10 or 12 fathom of from Reefcoll untill about the Rofehead. Thwart of the Rofehead it is farre flat, and greund as riffe ground. Where you come paft or about Rofehead it is very deep.

When the Rofe head is fouthfouthwelt from you about a league, there it is 30 fathom deepe, but very uneven and full of banckes, and the ground white groffe fand.

Rofehead being S.E. from you, it is 28 fathome deepe, with red ftony ground, almoft like as of it were riffe fand.

Rofehead being W. from you, there it is 16 fathom deep, and white fand-ground.

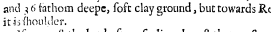
Courses and Distances.

From the point of Sandthamer to Somerhaven, the course is north and by east	1 league
From Somerhaven to Ahuys north	5 leagues
From Ahuys to Hanno eastnortheast	5 leagues
From Hanno to the Rocks, the course is east and by south	11 or 12 leagues
From the Rocks to the Outliers north and by east	1 league
From the Outliers to Chuitlaropell northnortheast	7 leagues
From the Rockes to Calmer north northeast	15 or 16 leagues
From the Rocks to Southerorden, the fouthend of Oeland east	8 leagues
From Sandhamer to the Rocks e.n.e. somewhat eafterly	17 or 18 leagues
From the north point of Bronholm to Ahuys north and by west, somewhat northerly	10 leagues
From the n. point of Brontholm to Hanno, somewhat westerly	12 leagues
From the north point of Brontholom to the Rocks n. e. & by n.	16 leagues
From the north pointe off Brontholom to Southerorden N. eaft a little easterly	11 leagues
From the southend or eende of Brontholom to the Rocks n. n.e.	19 leagues
From the east ende off bronthollom to Southerorden northeast, fomewhat northerly	24 leagues
From Southerorden to Reefcoll fouth and by eaft	8 leagues
From the southerne den to Hofeheat southeaft	33 leagues
From Southerorden to Quinthorough-Deepe foutheaft and by eaft, and fouthfoutheaft	48 leagues
From Southerorden to Dermemell eaft and by f. and e. f. e.	48 leagues
From Southerorden to Sevenbergen eaft and by fouth	48 leagues
From Southerorden to Derwinde eaft and by north	47 leagues
From Southerordan to the fouth ende of Gotland eaft N. E. 23 or 24 leagues	
From Southerorden to the Great Karell northeaft	27 leagues
From Valferborne to Elbingh eaft and by north	9 leagues
From Elbingh to Wifbe eaft	1 leagues
From Wifbe to Goesbeer eaftnortheaft	3 leagues
From Goesbeer to Sandtamer northeaft	1 league
From Valfarborne, or from the riffe to Brontholme eaft	20 leagues
From Valferborne to the northwards of bronthollme eaft by north	20 leagues
Here to the fouthwards of bronthollom eaft, and eaft and by fouth	28 leagues
From Wifbe to the north point of bronthollm f. e. and by eaft	3 leagues
From Meun to bronthollom eaft and eaft and by north	21 league
From Steden to the north end of bronthollom e. and e. and by n.	24 leagues
From Valferborne to Whitmond fouthealt	19 leagues
From Valfeborne to Dorobosh fouthfoutheaft 13 or 14 leagues	
From Meun to withmondr foutheaft and by fouth 13 or 13 leagues	
From Meun to Dornebosh fontheaft and by fouth	9 leagues
From the Telle to the point of Dornbosh north and by weft	2 leagues
From Dornbosh to whitmont, the courfe is northeaft	4 leagues
From whitmont to Iafmont eaftfoutheaft	3 leagues
From Iafmont to the Peert fouthfoutheaft	3 leagues
From bronthollom northeaft, fomewhat eafterlye	19 leagues
From whitmont to the n. end of Bronthollom N. E. and by E.	21 leagues
To the fouth ende eaft and by north eaft northeaft	13 leagues
From Iafmont to the fouth ende of bronthollm N. E. and by eaft	13 leagues
From the Peert to the fouth end of bronthollm northnortheaft	14 leagues
From Iafmondt to Camyn eaftfoutheaft fomewhat foutherly	19 leagues
From the New-deepe to Colbergen, the courfe is e. and by n. 16 or 17 leagues	
From Comyn to Colbergen eaftnortheaft	4 leagues
From Colbergen to Caslyn northeaft and by eaft	4 leagues
From Caslyn to Ruwolde northeaft and by eaft	4 leagues
From Ruwolde to Garthead northeaft and by eaft	4 leagues
From Garthed to Reefcoll e. N. E.	4 leagues
From Reefcoll to Lyba eaft and by north	7 leagues
From Lyba to Sernevis eaft	5 leagues
From Sernevis to the Rofe-head, the courfe is eaft	4 leagues
From Colbergen to Garthead eaftnortheaft	12 leagues
From Reefcol to Rofe-head, the courfe is eaft	16 leagues
From the N. end of bruntholom to the Swin, fouth and by weft	13 leagues
From the fouth end of bronthollom to Colbergen E. and by fouth	16 leagues
From the fouth end of bronthollom to Reefcoll, the courfe is eaft and by fouth	24 leagues
From the fouth end off Brunthollom to the Bartholloms north and by eaft	4 great leagues
From the north end of Brunthollom, or from the Bartholloms to Rofe-head, the courfe is eaft, and eaft and by fouth	10 leagues

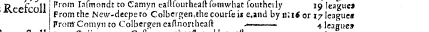
How most off all the chiefest poynts and places of the east sea do lye distant from Brontholm.

From brunthollom to der Memell eaft, fomwhat northerly	67 or 68 leagues
From brunthollom to Der Lyba eaft and by north fomewhat northerly	67 or 68 leagues
From brunthollom to Derwinda eaftnortheaft	80 leagues
From brunthollom to Houbrough, or the fouthend of Gotteland northeaft and by eaft	50 leagues
From the north end of brunthollom to Southerorden, the fouthend of Oeland northeaft fomwhat eafterly	16 leagues
From the fouth end of brunthollm to Southerorden northeaft, fomewhat northerly	27 leagues
From brunthollom to the Rocks or our rocks northnortheaft	19 leagues
From brunthollom to Hanno, the courfe is north	12 leagues
From the north end of brunthollom to Sandtamer northnortheaft	5 leagues
From the north end of brunthollom to the point of Goesbeer northwefe and by north	5 leagues
From the north point of bruntholom to wifede northwest	8 leagues

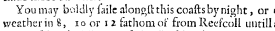
How those Lands doe shew themselves at Sea.



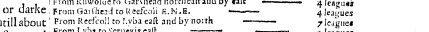
The south end of Oeland sheweth thus, when it is thwart off from you.



Brontholme sheweth it selfe thus, when you come from the west.

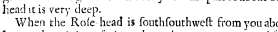


The Bartholmes, being northnortheaft from you, shew themselves thus.

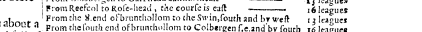


The Bartholmes being east from you shew themselves thus,

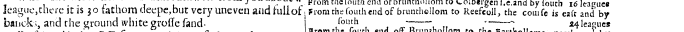
In this forme sheweth the Bartholmes, being N. from you.



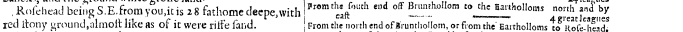
Thus sheweth wirmond, when you faile alongst by it, being 3 leagues off from it.



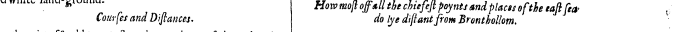
Thus sheweth Iasmond, when you faile alongst by it, being 3 leagues from the land.



Thus sheweth themselves wirmondt and Dornebosch, wit the land betwixt them both, when it is about fouthfouthweft from you, fo farre that you may but even fee it from betwixt.



Thus sheweth the land betwixt Reefcoll and the Rofe-head, when you faile alongft by it 3 leagues without the land.



Thus sheweth the land betwixt Colbergen and the Stolp, when you fayle alongst by it about 8 leagues without the land.

The

The second demonstration,

Where in the Seacoastes betweene Ryps-head and the Winda are set forth.

FRom the Rose-head to the Heele, the course is south-east 8 or 9 leagues distant. When you come neare the Heele, you are allmost ground of in thirtie fathom. On the Coast of the Heele close by the land, it is 24 and also 30 fathom deep.

Roade under the Heele

Under the Heele you may anckor in 12, and 20, fathom close by the land: the ground there goeth off very much. If you be a little off from the land, then you are ground off, north very farre without the land you have no ground in 40 fathom. A league to the northwards off the Heele there runneth off a flat from the land, whereoff you must take heed, when you will go to anckor under the Heele, you may anckor on both sides off the Heele, but on the innerside it is soft ground.

From Heele to Danske before the Wissell, the course is south and by west 5 leagues. If you will anckor before the Wissel, then anckor to the Westwards of the Chests, or the Wester-head in 10 or 12 fathom.

Danske Deep.

But for to saile into the Wissell, or the Danske Deep, you must loock for the two masts with barrels upon them, which standeth upon the Chests, or the Wester-head, bring one in the other, and saile in right with them, in betwixt the Chests, but when you are within Termunde, you must chose the easter shore, for the west shore is flat, when you come before Boatsmans flat, you must chose the side off the Greenshore, and make there fast with foure hawsers or Cables.

Quinsbrough deep.

The Quinsbrough deepe lieth from the Wissell, or the Chests of Danske eastnortheast, and northeast, and by east 13 leagues. From the Rose-head east and by south 17 or 18 leagues, and from the Heele east and west 13 leagues.

From the Wissell to the Quinsbrough-deep and all alongst to the northwards of it, is altogether a faire white sandy strand, upon both sides off the deep stand some withered trees, to see to as if they were burnt, but upon the southside stand two Capes, or beakons. If you will saile in there, bring the capes one in the other, when you come in 10, or 8 fathom, and saile in so right with them, and so you shall run right with the buyes, which lye on both sides off the Deepe to eight or ten in number, to with, on each side 4 or five, saile in betwixt them, untill you come within in the Kettell. There is no certainly to be Written off the lying in off this channel, as also of the Danske deep, whereunto men might truft, for by reason off the scouring off the Freshuts, and with great streaming off the Ice, they doe change offentimes, and sometimes in short but time, the Lords off the land there have very great care to give charge, that they be alwayes well seth wit buyes and beakons.

For to anckor in the road without the deep, then anckor so that the point of Lockfteed lye about north and by east from you, there it is 8, 9, and 10 fathom deep.

With in the Deep in the Kettel, men do lye to tarrie for the wind in 3 fathome and 3 fathom and a halfe.

For to saile up the Haff go out of the ketel about east untill you come against the Heert, and southeast over it, and then alongst the Haff amidst the channell unto the Haverstrome, the course is most east. Being over the Heert edge somewhat to the south shoare for to avoid that riff which lieth off from the north shoare about a third part into the Haffe, to with, from the point by east Fishouses there lieth a litle buye upon it, and come no nearer in then 12 or 13 foot. The right farreway is to the southwardes of it 14 and 15 foote soft ground, untill Brandenburgh, from thence further it is by litle and litle shoulder twelve, eleven and ten foot upon the Haverstraw. When you get the steeple off Quinsbrough in sight, then you shall see also by 12 a round black litle wood, keep the steeple on the north or east side of that little wood, untill that you be past about Brandenburgh, then let the steeple come a ships length to the eastward of the litle wood of trees, and saile so rigt with it, till you come by the buyes or litle trees of the Haverstraw, there you must run through amidst the channel betwixt them, untill you come into the Pregel which lieth up northeast unto the Towne.

Melven.

From der Pillo to Quinsbrough are about 8 leagues, but to Melven it is about 9 leagues, you must also saile up there misst the channell about southwest, but the point over against the Pillo, where the castle Terbaly standeth, you must avoid somowhat, which runneth far off flat.

Foure or five leagues north and north and by west from the Quinsbrough deep lieth the point of Brusteroort, and betwixt them both Loocsteed, whereupon standeth a Castle with a Church not farre one from the other, and also two high hommocks or hills, and the land there abouts is all full off trees.

Der Memell

From Brusteroort to the Deepe of Der Memell, the course is northnortheast, 16, or 17 leagues. It is there betwixt them both a faire strand, and the land lieth in a great bay. The Deep and is two fathom deep, within it you come into a great Haffe: you may runne to the westwards about the point, and anckor there where you will.

From der Memell to Heyligena, the coast lieth north and by east, somewhat easterly 4 leagues.

From Heyligena to the point of Sevenbergen, north and by east, somewhat easterly 5 leagues, that is with hommocks and hilly land.

Terlyba

Four or five leagues north and by east from Sevenbergen lieth Terlyba. There goeth in the land a little river, but there can go in no shippes, there is no more then six foot water. On the north side of the River standeth a Gentlemans house or Castle, with a turret upon the midst of it, the north end off the house is covered with boards, and the south end with red tyles, to the southwards or the eastwards off it stand also some houses, covered also with tyles, in betwixt two woods to see to. If you will anckor in the road off Terlyba, then anckor a little to the southwards off the Village so that the foresaid Gentle-mans-house with the turreth doe stand east and by north from you in foure fathom and a half, and five fathome lesse two foot, there is the best road and ground that is thereabours. When you come out of the sea, and fall with the land to the eastwards or to the northwards of Terlyba, you shall see within the land a black wood, and the houses in a ragged valley off Sand hills.

From Terlyba to Derwinda, the course is northnortheast 16, or 17 leagues, betwixt them both the land lieth in a bight, so that the coast alongst by the shore lieth no so right, especially 4, or 5 leagues by south Derwinda, there it falleth away into a great bight, which men do cal Sackerwyke, an d also with more smaller bights and bayes towards Terlyba.

Sackerwyke. Steenoort.

About foure leagues to the northwardes off Terlyba lieth a point called Stickeroort or Steenoort, thwart there of it is very flat, so that a good wayes from the land, it is not deeper then nine, tenne, and twelve fathome, all stony uneven ground, of this pointe you must take good heed, and not come to neare it. Anno 1599, in the Spring a man of Hoorn failed somewhat neere to this thould, and come on ground upon an unknowne rock, and lost his ship. To the northwardes of it, towardes Derwinda, thwart of Sackerwyke it is all cleane ground, and farre flat, at many places a good wayes from the land not deeper then five and seven fathom clean sandy ground, good for to anckor in, when you lye by there with a northeast winde, and can get nothing with turning to windwards. But if you keepe under saile, you may in turning to windwardes come neare the shore every where without feare in 4 or 5 fathom.

For to know Coerland.

For to know this Coaste off Coerland, then remember these places here under Written.

Bakeovens.

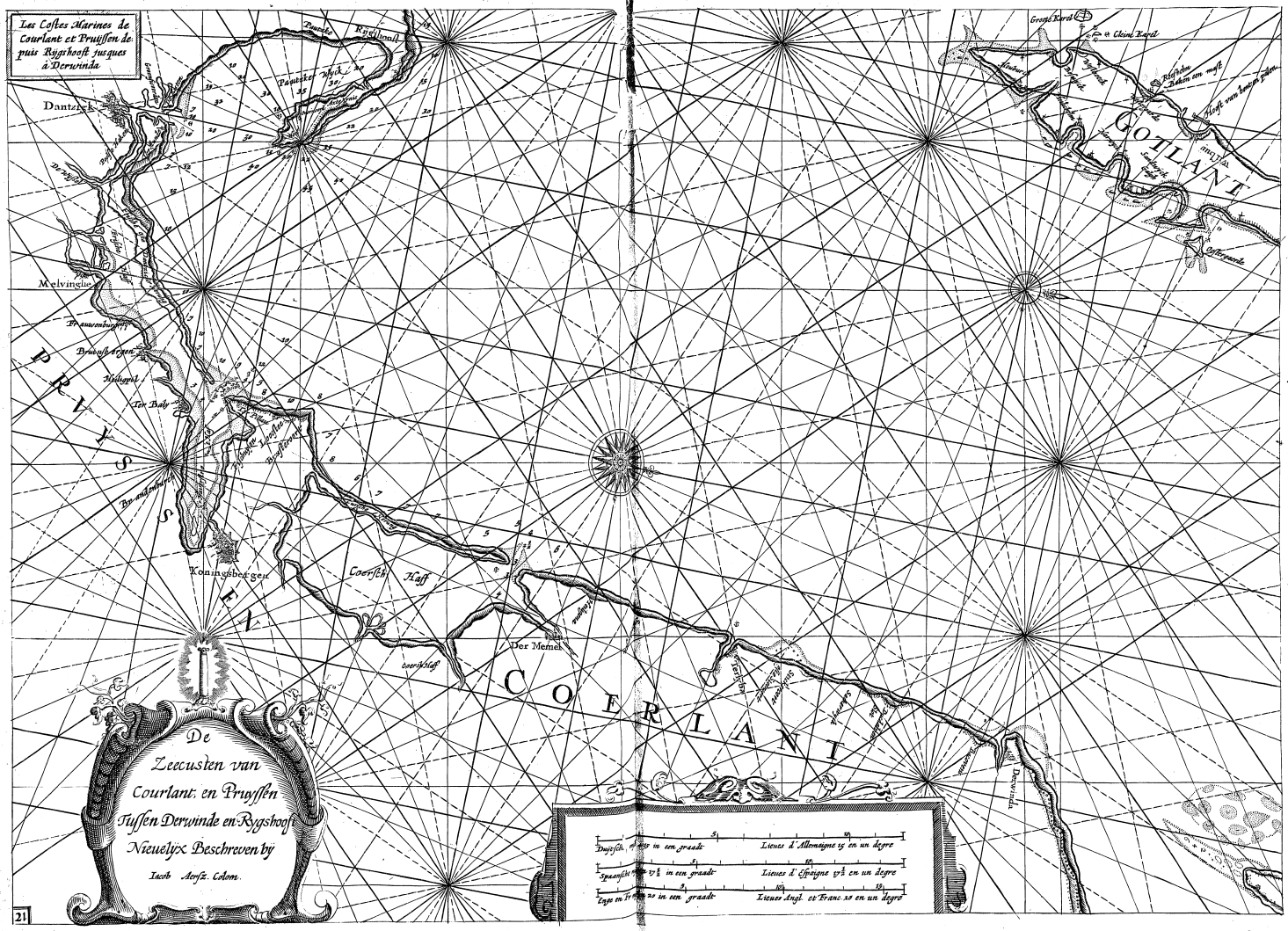
At Derwinda standeth a Castle with three Towers, which is covered above with red tyles, and under it is white, about a league to the southwardes off Derwinda, lieth the Bakeovens, which is next to Domesnes, the best land to be known of Coerland, it ariseth first when you beginne to see the land, in a white Sand-hill, the top whereof is full of trees, but when you come see neer the shore, that you can see the other land also, then there ariseth more land with hommockes, so that then it is not so good to be known.

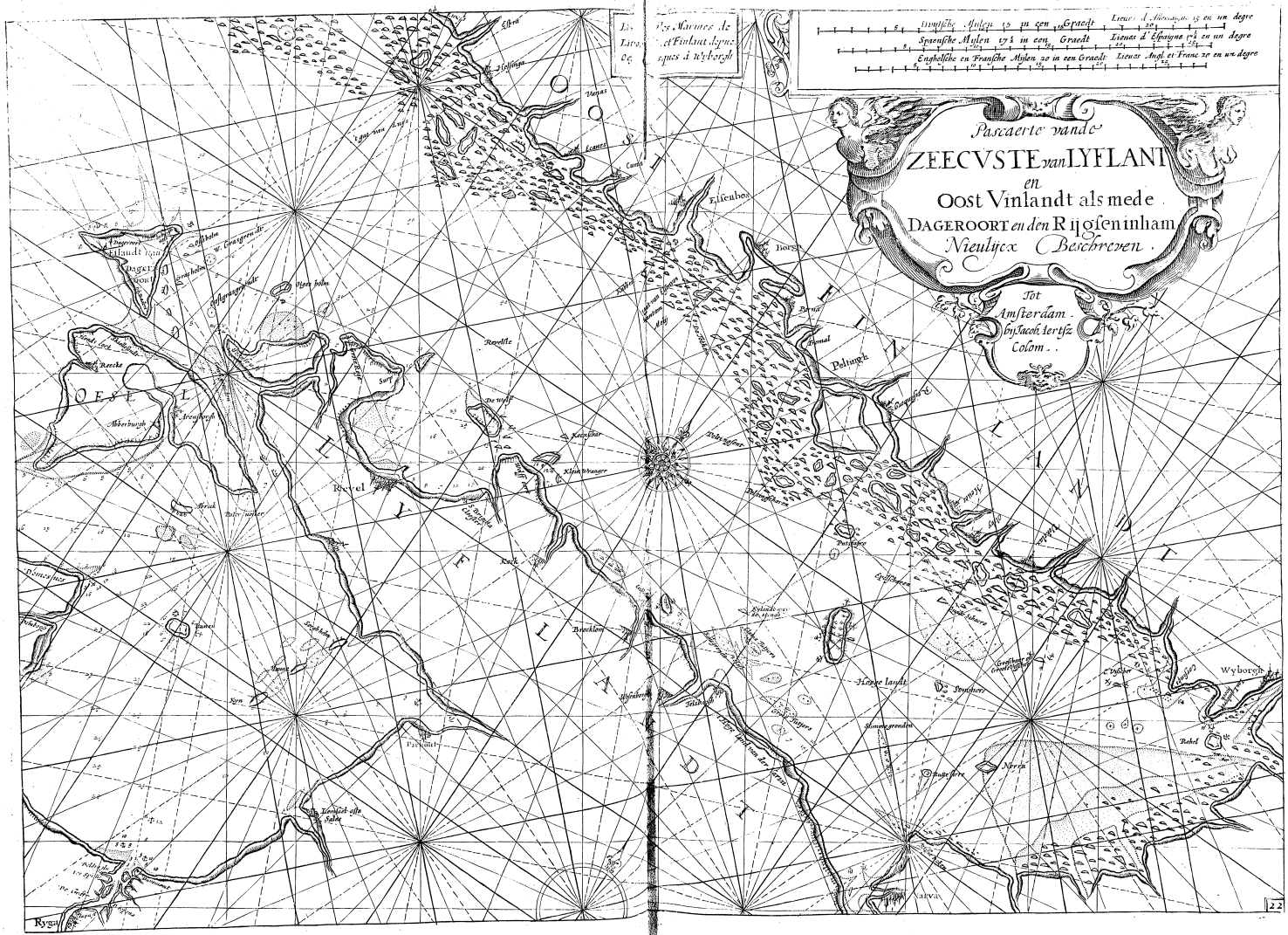
Duck de Alves Castle.

About 4 leagues to the southwardes of it in Sackerwycke lieth yet a hommock or hill full of trees with some little hommockes to the eastwardes of it, when you are thwart off Derwinda, you may even see it half wayes up to the top, but not wel from below. This hommocke is called by some Duke Dalves castle, and lieth most alone: the land, as well to the southwards as to the northwards of it, is most all even and plain land.

About six leagues to the southwards of the foresaid hommock, and 5 or 4 leagues and an half to the northwards off Terlyba, lye also two high hommocks close one by the other, the land to the southwardes of them towardes Terlyba, is to see to farre of (when you are thwart off these two hommocks, or somewhat to the northwards off them) as if it were al broken land, thwart of this about five leagues from the land, or

when


Las Costes Marines de Courlant et Prussen depuis Rygshooft jusques à Derwinda
Dantzick
Pillau
Melvingue
Ter Baly
Koningsbergen
Coerssch Haff
Der Memel
PRVSSEN
COERLANT
GOTLANT
Groote Karel
Clein Karel
Oostergarde
Derwinda
De Zeecusten van Courlant, en Pruyssen Tussen Derwinde en Rygshoof Nieuelyx Beschreven by Iacob Aerotz. Colom.
Duytsch 15 uren in een graade
Lieues d'Allemaigne 15 en un degre
Spaensche 17½ in een graade
Lieues d'Espaigne 17½ en un degre
Engelsche 20 in een graade
Lieues Angl. et Franc 20 en un degre


Duytsche Mylen 15 in een Graedt
Spaensche Mylen 17½ in een Graedt
Engelsche en Franssche Mylen 20 in een Graedt
Pascaerte vande
ZEECVSTE van LYFLANT
en
Oost Vinlandt als mede
DAGEROORT en den Rijgsen inham
Nieulycx Beschreven.
Tot
Amsterdam
by Jacob Aertsz
Colom.
Reval
Narva
Wyborgh
Pernau
Pelingh
Dagerort
Oesel
Abrensburgh
Arensburgh
Ryga
Pasewalck
Borgo
Elfsenbo
Kloster
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when you can but even see the land from below, it is thirty fathom deep.

Banck by Derwinda. When you begin to come about Derwinda within a or 3 leagues of the land, there lieth a banck of 12, 13, & 14, fathom: some say that west and by N. from Derwinda there should be no more upon that banck then 5, or 6 fathom water, it is about a halfe league broad, betwixt the banck and the land a league without the shore, it is against 20 and 24 fathom deep.

If you will anckor before Derwinda, then bring that foresaid Castle about eastsoutheast from you, then it cometh almost behind the high land, and anckor in 5 fathom from the shore, there is the best roade.

Of the Depths and grounds about these coastes.

Betwixt the Heele and the Roshead, but neereft the Heele, there it is 33 fathom deepe, and the ground is there white sand.

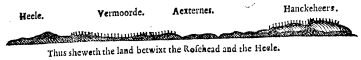
At the Heele in the roade it is 25 fathom deep, the ground black sand, and going of to 30 and 40 fathom.

Betwixt the Heele and Quinsbrough it is very deepe, comming neere the Heele it is steepe, but towards Quinsbrough and the Nerung it goeth up plainly flat.

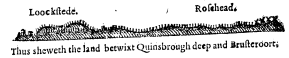
How these lands doe lye one from the other, and from other lands.

From to Rose-head to Axternes southeast ——— 4 leagues
From Axternes to Vermorden southeast ——— 1 league
From Vermorden to the Heele southsouthesast ——— 1 league
From the Heele to Danske south and by west and southsouthwest 5 leagues
From the Chells or Wiffell of Danske to the Deepe of Quinsbrough saltwards east 13 leagues
From the Deep of Quinsbrough to the point of Brufteroort northwest and by west 4 or 5 leagues
From Brufteroort to the Deep of Dermemell n.e. and by n. 16 or 17 leagues
From the Rofehead to Quinsbrough deepe foutheast and by east 17 leagues
From the Heele to Quinsbrough deepe southeast and by east somewhat southerly 13 leagues
From the Rofehead to Der Memell e.n.e. somewhat easterly 29 leagues
From the Rofehead to Sevenbergen eastnortheast 33 leagues
From the Rofehead to Derwinda northeast 51 leagues
From the Rofehead to Dageroort northeast and by north 80 leagues
From the Rofehead to eastergore, north and by east 61 leagues
From the Rofehead to Houbrough the S. end of Gotland N. 84 leagues
From the Rofehead to the fouth end of Oland northwest 33 leagues
From the Rofehead to Hannoe, the course is n.w. and by w. 32 or 60 leagues
From the Quinsbrough Deep to Houbrough the fouth end off Gotland northwest 46 leagues
From Quinsbrough deepe to Southernorden, the fouth end of Oland, southwest somewhat westerly 50 leagues
From Der Memell to Houbrough west N. w. and w. and by N. 32 leagues
From Der Memell to Heyligena north and by east, 4 leagues
From Heyligena to the point of Sevenbergen, north 1 leagues
From Sevenbergen to Der Lyba north and by east 4 or 5 leagues
From Der Lyba to Derwinda N.N.E. 16 or 17 leagues
From der Memell to Brufteroort fouthfouthweft 22 or 17 leagues
From der Memell to Danske S.w. and S.w. and by w. 32 leagues
From der Memell to Rofehead w.fw. 29 leagues
From der Memell to the Earthollom, or the north end of Bronthollom, west and w. and by S. 64 or 65 leagues
From der Memell to Honbrough n.w. somewhat westerly 37 leagues
From Sevenbergen to the Rofehead southwest and by west 33 leagues
From Sevenbergen to Southernorden west, fomwhat northerly 48 leagues
From Derwinda to the Rofehead southwest 63 leagues
From Derwinda to Bronthollom westfouthwest 80 leagues
From Derwinda to Houbrough west fomwhat foutherly 37 leagues
From Derwinda to Eaftergore the courfe is w. and by N. 29 leagues
From Derwinda to the Godrfche fand n.w. and n.w. and by n. 31 or 32 leag.
From Derwinda to Dageroort north 33 leagues

How these Lands doe shew themselves at sea.



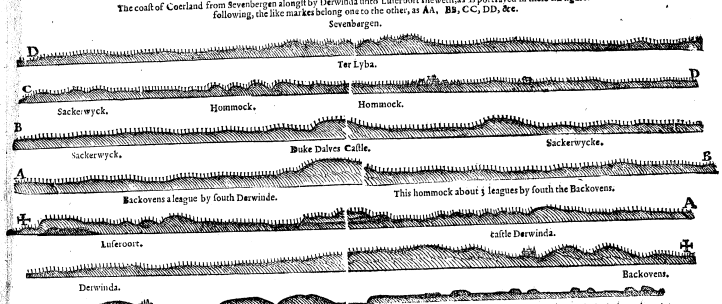
Thus sheweth the land betwixt the Rosehead and the Heele.



Thus sheweth the land betwixt Quinsbrough deep and Brufteroort.

Thus sheweth it selfe the coast of Coerland about Sevenbergen, when you saile alongst by it a league without the land.

The coast of Coerland from Sevenbergen alongst by Derwinda unto Luferoort sheweth, as is portrayed in these six figures following, the like markes belong one to the other, as AA, BB, CC, DD, &c.



When Derwinda doth shew it selfe first, being east from you, it sheweth it selfe thus with the land, as well to the northwards as to the southwards, but when the Castle doth begin to come eastsoutheast from you, then it goeth behinde the land, that you can not see it.

The third demonstration,

Where in are described the Seacoastes betwixt Derwinda and the utmost off the East-sea.

THe lying of Derwinda, and how men shall know it, is here before declared.

From Derwinda to Leyferorte, the coast lieth n. e. and by north foure leagues, and from Lyferorte, to Domefnes eastnortheast 12 or thirteen leagues. When you are thwart of Lyferorte, you can perceive no point, it seemeth to be al an even right coast from Derwinda to Domefnes, but comming from Derwinda or Domefnes, and being a league or two to the eastwardes or to the westwards off it, you can see well that it is a blunt point, lying out. Thwart of Lyferorte runneth of a great uneven shoulde, at least two leagues into sea, but you need not feare of it, you may runne over it in 4, 5, or 6 fathom by the lead, like as alfo alongst al the coast off Coerland from Derwinda, untill about Domefnes.

To the westwards of Lyferorte the land hath a little bight, there you may anckor for northeaft, eastnortheaft and east windes: when it bloweth hard, and that you can do no good with turning to windwards, you muft bring the point of Lyferorte eastnortheaft from you in 7 fathom, there is clean fand-ground and good lying.

The land betwixt Domefnes and Derwinda is verie good to be know. At the point of Derwinda it is high, and goet floping down by little and little to the eaftwards unto Lyferoort: Likewife three or four leagues by weft Domefnes lieth a high blue hill, called the Doembergh, which is fteep on the eaft fide, and goeth by little and little floping downe to the weftwardes unto neare Lyferorte, fo that the two high double blue lands do go down into a valleye one againft the

Lyferorte. other, the low land betwixt both is Lyferorte. The point off Domesnes it selfs is low sandie land, lieth out about three leagues to the eastwardes of the foresaid Doembergh: but all that is altogether full of trees.

Riffe off Oesell Swalverorte.

The south end off Oesel lieth from the point of Domesnes N.W. and by W. about 4 leagues asunder, there runneth out a great Riffe, about south and by west, and southsouthwest into sea, towardes the shoulde Lyferorte, called Swalverorte, that is a dangerous riffe, at least 3 leagues long, verie hard and uneven, at some places towards Oesell it lieth deye above water, and at som other places it is two and an half and 3 fathome deep. To the westwards of that riffe lye also manie uneven Dwael-grounds a good wayes off from the land, which lye alongst the coaste of Oesel to the northwards, which are at some places not deeper then 2, 3, and 4 fathome.

If you wil goe to Rye, and comming out of the sea doe fall with the land about Derwinda, then leave not the coaste of Coerland, but runne about by it upon the lead, all along unto Domesnes in 4, 5, 6, or 7 fathome, according as you have the wind, that you may not fall without, or to the westwardes off that riffe Swalverorte. The channell betwixt Coerland and that forefaide riffe is 14, 15, and 16 fathom, but verie uneven. The ground upon the should thwart of Lyferorte is at some places also very uneven for to found, sometimes fixe, sometimes eight, and nine fathom, the one cast at least 2 or 3 fathom more or lesse then the other, and that not very farre from the land but you neede not feare off it, you may bouldly

Marks for to shunne Swalverorte.

runne to the shoare in 4 and 5 fathom.

But if (when you come out of the sea) you are past Lyferorte, and come with the land to the northwards of it against Oesell, then you have deeper water, for not far to the westwards without Swalverorte it is thirtie fathom deep. If you can see Oesel and Coerland, and that the Doombergh be e. f. e. or f. e. and e. from you, then run on f. e. until you come neare Coerland, for to avoide Swalverorte, and then alongst by it upon your lead towardes Domesnes, as is before saide. Or when as you have the Doombergh e. f. e. from you, then keepe it so standing from you, and saile in so right with it, and then you shall (without harte) ran alongst over the taile outermost shoulde of Swalverorte, it shoulde th up there verie soone and sodenly from 30 or 25 and 30 fathom, but if you bring the east side or the Doombergh not more southerly from you then e. f. e. and f. e. and by e. then you shall noth meet with any danger of the dwaelgrounds, not of Swalverorte, you shal thus saile alongst at least 3 leagues over the Dwael-grounds and Swalverorte, over verie uneven grounds, the one cast at least 12, the other 9, and allo wel 7, and 6 fathom, but goe on your course without feare, when as the Inner side, or east side of the south end of Oesel cometh to be N., and N. and by E. from you, then you are over the riffe, within al the foule grounds that might hurt you, when as that you gette then 13 or 14 fathome, then saile bouldly without feat towards Domesnes.

If it should happen, that with a N.W. winde, you should fat with the land to the n.wardes of Derwinda, or Lyferorte, and should fear to come neere the coaste of Coerland, then keepe not further off to Sea, then that the E. poinote of Doombergh be e. f. e. from you, when that you bring the east side of the south point of Oesell n.n.e. from you, then you shall run alongst over swalverorte in 7 fathom. Betwixt Oesel and Coerland it is sixteen and seventeene fathom deepe. When as Domesnes is southest and by east, & the south point of Oesell n. w. and by N. from you, and that you are a like neare to them both there it is 18 fathome deepe.

From the point of Domesnes runneth of also a riffe Northeast and by north, or a little more northerly a league and a half into the sea, which is on the east side verie steepe, but on the west side somewhat flatter.

When you come from out of the w., and are bound to Rye you may runne about by it upon your lead, in 5, 6, 7, 8, 9, and 10 fathom, so neare as you wil, but according as the Winde and weather shall be, I know of some that have sounded about it in 4 fathome and a half: but he that will runne so somewhat neare about it must be verie carefull in using of his leade, and not let it reft.

Not verie farre from the riffe, on the west side, it is 12 and 13 fathom deepe. When as the point of Domesnes, where the whitered trees stande upon come to be southsouthwest from you, then you come on against the west side of the riffe, when that point is southwest and by south from you, then you are right thwart of the point, but when it is southwest, and S.W. and by W eft from you, then you are about the riffe, and then you may bouldly goe on southeast towardes Rye. Domesnes and the Deep of Rye lye southeast somewhat southerly, and northwest somewhat northerly, one and twenty leagues distant.

About 8 leagues to the eastwardes or to the southwards of Domesnes runneth of another riffe from a point which you may found about in 5 and 6 fathom. The land betwixt Domesnes and that point lieth about S.S.E., and N.N.W., but to the south wards of it, it falleth a way to the south 5 so that betwixt this point, and the Deep of Rye, there is a great bay, which is called Kowerwyck: somewhat to the southwardes of this Kowerwyk. p.inte in the bay lieth fome high land, which lieth from the ke. Deepe of Rye west and by south, and east and by North. It must be verie cleare whether when you can see it, lying at anchor before the deepe of Rye.

When as (comming from Rye) you shal be somewhat to the southwards in the Koperwike, and come running out there by the shoare. this foresaid point hath thus oftentimes been mistaken for Domesnes, because that then you can see no Land without it, but when as you come about the point, you shall againe fee the Land out a head, then you are yet about 8 leagues from Domesnes.

Under the pointe of domesnes you may ankor on both sides, as wel to the w.wards as to the e.wards. If you wil aukor to the w.wards of it, then ankor in 6, 7, or 8 fathom, there you have good land ground, and sheltred for e. and f.e. winds. If you wil anckor to the e.wards of it, then anckor in 6 or 7 fathom, a little within the point of the land, for that the point be n. or n. and by w. from you, there is good sandie ground, and good lying for a f.f.w., w.n.w. and n.n.w. winde: the point of the riffe lieth then from you about northnortheast a league & a half. If you wil ankor further then the shoare, so that the pointe of domesnes be n.w. or northwest and by north from you, there it is 18 and 20 fathom deep foft ground.

The Deep of the Riv er Rye

Tarmel.

Kinne.

Amrook

Dwel-grounds.

Roade under Domesnes.

Reden der Oesel.

If that comming of from Rye against the rif of domesnes, you will fail about it, then you must runne farre enough about without it, or if you will take it somewhat near, you must be exceeding careful in using your lead. It is (as hath bene said) verie steepe on the east side, with a N.W. waye, (which runneth thwart into the riffe) you shall have the one cast 12, 9, or 8, and the next cast 4, or 3, fathome, if you fall within the point of the riffe. But if you have been at anckor under domesnes, and fet faile from thence, and will faile about the riffe, then you may the better runne about it by your lead. Goe from thence n.n.e. and n.e. and by n., that runneth moft alongst by the riffe. When the point of Nesse commeth about west from you, then is it will by little and little somewhat shoulder, you must no lpare your lead, but maft found often. With a N.W. course come not nearer it then in 9, 10, or 12 fathom. When the point of Nes cometh to be southwest from you may found about it so in five, five or 7 fathom, then you then come to the east side of the riffe, when that is southwest and by south from you, then you are right thwart of the point of the riffe, but when it is f.f.w. from you, then you are about the riffe, go then W. S. W., or more southerly towards Coeriand, and runne alongst by it, in five, fixe, or seven fathom, (according as the winde shall be) toward Luferort.

If you faile from Rye with an E. or N.E. winde, and shall faile by night about the rif, then fet you course so, that you be fure you run farre enough alongst to the N. wards, or without the Riffe, and keepe that course untill that you come neare the grounds of Ambrook or Oesel in 15 or 16 fathom, then you shall be without doubt past the riffe, then goe on a while S.W., untill that you reckon the point of Domesnes to be S. east, or somewhat more easterly from you, then edge up to the coaste of Coerland by your lead, and runne alongst by it, in 4, 5, 6, or 7 fathom, as hath been beforefaid.

Round.

Eastt and by north eight leagues from Domesnes lieth the Hand Round: you may runne round about it by your lead, in fixe or seven fathom All alongst the southwest side it is al foule & sharp rockie ground, therefore come not nearer to the shoare then in 6 fathome. Southsoutheast about a halfe league from the south point lieth a little plate, where upon it is not deeper then 6 foot, there hath once a man beaten of his ruth. It lieth betwixt the 7 and 8 fathome depth, for to avoide that, take the reabouts the founding of the shoare in five or fixe fathom, and then you run through betwixt it and the shoare, or els, if you keepe in eight or nine fathome, then you runne about without it.

Road und derRound.

If you will anckor under Round for a Southsouthwest, Southwest, or Westsouthwest Winde, then runne about the Southeast point, untill you come to the East side, there is a little Bay, where stand a few howses with a Chappell, which you can see when you come somewhat neare to the shoare, anckor thwart of it in five fathome, so that the Chappell doe stand

stand S.w. from you, there is the beft roade under Round, being clean sandie ground, but when it bloweth hard the sea commeth rouling in. At other places it is not verye cleane.

The farreweaye betwixt Round and Domesnes is two and twentie and three and twentie fathom deepe, and betwixt Round and Daymemonde three and twentie and four and twentie fathom.

The Deep of the Riv er Rye

From Round to the Deepe of Rye, it is S. S. E., and S. E. and by S. 16 leagues. Before the Deepe of the river Duyn you may anckor in 10 fathome, either to the southwards or the northwardes of it, where you pleafe.

The Deep of the river or Rye is Pilots water, as well in failing up, as failing off. How men shall faile there in or out it is not possible to describe, for that men might relye upon it for by reason of the continual scouring of the ifream, and especially some extraordinarie great freshuts, and strong drifts of yce, the depths and shoulder do there often shift and change, where of everie one that is bound thither may be mindfull of.

Tarmel.

From the Deepe of Rye to Parno, the course is n. and by e. 21 leagues, betwixt them both, about twelve leagues from Rye lieth a little towne called Lemsael or Sales, there goeth in a little deepe of 8 foot water. Before that deepe lieth a bank, which you may faile about on both sides, and come within it, is 3 fathom deep The Hand Kyn lieth froms Sales northwest, five great leagues: from Round eastnortheaft 9 leagues, and from the Deepe of Rye north, about 14 leagues. It is a little low Hand, about 3 leagues long, and hat round about it moft foule ground. Betwixt Kyn and the coaft of Lyfland it is four leagues broade, and the right deep betwixt them both is eight and nine fathome deepe.

Kinne.

Amrook

Northwelt and by W 8 leagues from Round, and N.7 leagues from Domesnes lieth Ambrook, that is a little Hand which is round about foul, with sharpe stonie ground, and lieth a great league distant from the coaste of Oesell. Betwixt Round and Ambrook but nearest Ambrook lye manie uneven Dwael grounds, of 3, 4, and 5 fathom. Ambrook and the S. ende of Oesel lie northeaft, somewhat northerly, and southwest somewhat southerly about 7 leagues distant. Under the south point of Oesell on the east side is a good roade for weft erlye windes. If you will anckor there, then anckor in 8 or 7 fathome, so that the white Church, which standeth somewhat within the southermoft point, doe stand weft and by south from you, there is good soft claye ground, and you shall lye sheltred for a weft and westsouthwelt winde. The ground is there verie even and flatte, when as you gette the seven fathome, and saile towards to land, it continueth long al one depth of seven fathom, untill you come verie close by the shoare before it will beshoulder.

Dwel-grounds.

Reden der Oesel.

It is there al alongst by the east coast of Oesel flatte ground of three, four, and 5 fathome.

For to saile from the S. ende of Oesell unto Arentsbergh through within Ambrooke, you must leave 4 thirds of the water on the larboard side towards Oesell, and one third part on the ftarboard side towards Ambrooke. there you shal have about 7 fathom water, and soft clay ground, towards the coaft of Oesell it is full of uneven Dwale-grounds, alongst by the w. side of Ambrooke you can not lightly take harte.

Arentsbergh.

Arentsberg lieth from the south ende of Oesell n. e. diftant 10 leagues, but from the Hand Ambrook N. W. 4 or 5 leagues. Upon the weft side off Oesell, the coaft lieth off from the south end unto Hondforte, with divers bay, about north northwelt and fouthfoutheaft 16 leagues, betwixt them both lye 2 lade places Wyke and Reeck. Alongst this weft coaft of Oesell lie verie manie uneven and foul grounds, where of men muft take verie good heede.

Towne upon Dagerorte.

Hondforte, the northwelt point of Oesell, and the pointe of Dagerorte lie northnorthwelt, and fouthfoutheaft about 8 leagues diftant. Betwixt them both is a great have, the runneth alfo a channel through, but it is fo fhoald, that no ships can go through, and al over sharpe and uneven ground. Upon the towne of Revell cauled there to be builded, for to knowe the land by, which men may see on both sides of Dagerorte fairre into sea, and also may see it over the land ferre in the foreland baye.

Under the point on the S. hside of Dagerorte is good lying for north and northeaft winds & cleane fand ground, you may found about by the point off Dagerorte in seven or eight fathome, on the north side of the pointe is good roade for southerly windes.

From Dagerorte to Syburghnes, the coaft lieth northeaft seven leagues. Betwixt them both, to were, three leagues from Dagerorte, and four leagues from Syburghnes, lieth a ground, going flat of thwart from the land northwelt into sea, at least 3 or 4 leagues, almoft in manner as the greate luttifh riffe, is firft of 3, 4, 5, 6 and 7 fathom deep, and waxeth deeper by little and little towards the Finnish Scheers, where at laft it runneth to no hing.

About 3 leagues without the land of Dagerorte, north and north and by east from the high towre, there lieth a funcken rock which is verie steep, whereupon there is no more then tenne foot water: A man of Offaenen hath beaten upon it, which wente no deeper then eleven foote and a half, prefently after the ftroke he caft the lead, and found five fathom depth. The Towre of Dageroort was then from him fouth and fouth and by west.

Syburghnes.

Syburghnes is an out point, with two points, from each off which flooteth of a riffe, betwixt these two riffes is a faire flat fand ftrand, where you may anckor fo neere the fhoare as you will, in 6, 5, or 4 fathome.

A little to the weftwards of the westermoft point off Syburghnes, not farre from the land lieth a fhoulde under water, about fo great as a fhippe, whereupon it is not deeper then twelve foot.

Oxeholm Graskholm

From Syburghnes to Oetgesholm, the course is E. N. E. 7 leagues, betwixt them both goeth in the Moonfound.

To the S.wards of Oetgesholm goeth in a great bay into the land, wherein lieth an Hand, and behinde it a little towne called Hap-fael, there you may anckor where you will. On the S.W. side of this baye, runneth of a great fhoulde or ledge off rocks at least a great league into the sea, which is verie broade, you may runne in alongst by it into Moneford.

Graesground.

From Syburghnes to the Oxeholme and Grafholm, the course is southeaft 10 or 5 leagues, the Grafholmes are two little greene Hands, and the Oxeholme lieth about a league to the weftwards of the Grafholm, about which you may saile, and anckor round about, a little league north and north and by east from the Oxholm lieth a ground loofe from the land, which you muft avoide, called the wefter Grafground, there are two shoulders, which are called the Grafgrounds, the other Grafground, which is called the eaftermoft, lieth over against the Grafholm, towardes the riffe of Hafpael, upon which there is no more then 5 foot water. He that will faile into the Moonfound, muft take heed thereof.

Moonfound.

He that will faile off from Oetgensholme through the Moonfound muft goe on fouthfouthwelt to the Grafholme, and fail in clofe by it, for to avoide the Grafground, which lieth to the eaftwardes over againft it. From the Grafholme to the point of the Oesell, where the great tree ftandeth upon, the course is fouthfoutheaft seven leagues. From the Grafholm towardes Oesell lye 4 little Hands, each about a league one from the other.

The caftle of Moonsound.

When as you faile from Grafholme towardes Oesell, you muft fail alongst by these little Hands, leaving them lying about two or three cables lengths on the ftarboard side, untill that you come to the land of Oesel over against the great tree. In this fareway it is 5 fathome deepe.

When as you come failing fo alongst past the Grafground, you shall meete with an Hand on the larboard side, to the n. wards of it goeth in the Deepe unto the Caftle of Moonfound in 3 fathome, but fometimes, it is fhoulder, for there it is all full of fands. To the S.wards of the fame Hand goeth in another Deep which you may faile through until you come to the ende of Oesell, and then you leave the two little Hands by the fouth ende of Oesell, lying on the ftarboard fide. But the right and beft Deep, goeth from the aforefaid great tree, in alongst by the land Oesell, which is 3 and 4 fathome deepe, and at laft it will be 6, 7, and 8 fathom: when you faile alongst there, you leave the foresaid two little Hands by the fouth ende of Oesell lying on the ftarboarde fide. From the greate tree to the firft little Hand, the course is E. S. E. 5 leagues, and then from the firft little Hand to the fecond fouthcaft, & forth to the ende of Oesell eaft and by fouth.

Paternoffter.

From that ende or northeaft pointe of Oesel runneth off a foul riffe, a great half league into the sea, called the Paternoffter which you muft avoide.

From this northeaft pointe of Oesel unto Parno, the coaft of Lyfland lieth eaft fouthcaft and weftnorthwelt.

When you come about that pointe, you may saile into the sea or baye off Rye, where you will, weft and by n. to Arentsbergh, S.W. or forwhare wefterly to Ambrooke, S. S. E. to Round, S. E. and by E. to Kinne, or where you will, the lying off Kinne is defcribed here before.

Magno and Serckholm

From Kinne to Magno and Serckholm al alongst unto Parno, the course is northeaft 8 leagues. Thwart off Magno and Serckhollom it is betwixt Coerland and the Hands, five & fixe

Parno. fixe fathom deep, & alongst Coerland altogether a faire ſtrand.

Parno lieth in a great baye, it is there in the roade 3 and 4 fathom deep, For to anckor there you muſt anckor ſo tha the ſteeple of Parno ſtand n. n. e. from you there is beſt roade.

Oetgens-holm. Oetgensholme and Syburghes lye e. and by n., and w. and by ſ. 7 leagues diſtant one from the other.

You may ſaile round about Oetgensholme, and alſo anckor under it, for northerly and N.W. winds in 6 or 7 fathom.

Great Roge. From Oetgensholme to great Roge, the courſe is eaſt and by north 4 leagues, betwixt them both, a little to the ſouthwardes of she farewaye lieth a ſhoulde even above water, which you may ſaile round about, but you may not come verie neare it becauſe it is ſtonie and rockie round about it, Great Roge is an out point with 2 or 3 white Chalck-hilles, and thereby is verie good to be knowne. Betwixte this point and Oetgenſholme, ſomewhat more ſoutherly lieth another point, called

Litle Roge. litle Roge, betwixt it and great Roge, goth a broade Sounde in to the land of fixe and ſeven fathom depth, but in the ende it is ſhoulde. Thereabootes it is call cleane ground, and good for to anckor in.

From great Roge to the Iland Nargen, the courſe is eaſt 5 leagues.

When you fail from great Roge towards Narghen, you ſhall finde 4 leagues to the eaſtwards of great Roge an other point with two white chalck pots, called Surp, betwixt it and great Roge, the land falleth awaye to the ſouthwards, into a great baye. If you will ſaile to Revell, then ſail alongſt by that point of Surp, towards Nargen, leaving it on the larboardſide of you, going on ſtil eaſt, until you com to the eaſt end of Nargen

Riffe off the Carels half, and then you ſhall come by the end of the riffe, which lieth off from the Blote Karels, come no nearer it then in 6 fathome.

Revel. When as the caſtle of Revell commeth without the Carels, then ſail right unto the head of Revel, until you come to the eaſt ſide, let your anckor fall there, and then hall with the to re-ſhips or ſteame, to the head, and make you faſt by 4 cables, for the north and N.N.W. windes which blow there ſtat open in making it a lee ſhore, ſo that ſometimes with ſuch winds there commeth in a rowling ſea.

Eaſt about, 4 leagues from the S. ende of Nargen, lieth the Iland the Wolfe, which is aboute a league long.

Northnorthweſt, and northweſt and by north two leagues from the weſtende of the Iland the Wolf, and northeaſt and northeaſt and by e. from the north end of Nargen lieth a rock

Revel-ſtone. under water called the Revel-ſtone, although there be no more water upon the three or 4 foot, yet it is in the Summer time with faire wether, oftentimes ſo ſmooth water, that it doth not break upon it, and it is alſo very ſteep, ſo that you may not come neare it by your lead then in 12 fathom. The markes for to know the place of this Revel-ſtone are theſe: When the N.E. end of Nargen is S.W. and ſouthweſt and by weſt from you, and the high ſteeple of Revell is capſtone barts length, or a little more to the weſtwards of the weſt end of the Iland the Wolfe, then you are right thwart of this rock. The ſteeple of Revell is alſo then right ſouth from you. But when the ſte-

The wolf. ple of Revel cometh to the Wolfe, and that you are bound the eaſtwards, and you are forely paſt this Revel-ſtone, and a good wayes to the eaſtward of it.

From the weſt end of the Ilands the Wolfe lieth of a riff to the n. wards in the ſea, about an Engliſh mile toward the Revel-ſtone, upon the end of this riff lye 5 or 6 rocks a litle above water. If you come away from Revel on north and by weſt alongſt by the Wolf, the marke the point of Surp, whoe that commeth even unto the ſouth end of the Iland Nargen, then you ſhall alſo have even the length of the foreſaide riffe. If you looke out then on the ſtarboard ſide, and be not failed very farre alongſt to the Weſtwardes off the Wolf, you ſhall ſee the foreſaid rockes (lying upon the end of the riffe) lye thwart from you, and then you may run to the northwards about by them in 5 fathom without doing amiſſe.

Showld of Nargen. Betwixt Nargen and the Wolf lieth alſo a ſtony ſhould which is very broad, but much neerer. Nargen then the Wolf, and lieth from the S. points or Nargen about N. E., and from the north point eaſtſoutheaſt. Therefore if you bring the ſouth pointe of Nargen about ſouthweſt or S. W. and by S., and the foreſaid north point weſtnorthweſt from you, and that the Wolf lye then free from the maine land, you ſhall not miſſe to ſail upon this ſhould.

Nargen. You may ſaile round about Nargen, and alſo anckor under it for northerly and weſterly winds in ten, twelve, fourteen, and eighteen fathom.

From Nargen to the Iland Wranger, the courſe is eaſt, 7 leagues. The lying there of you may ſee in the following.

Of the coaſt of Finland betwixt the Alands Hoſſe and Elſenoe.

BEtwixt Ure or Beſtel on the coaſt of Sweden, & the Ilands of Aland, goeth in the Alands Hof, which men do call the North-bodem, which lieth up into the ſea towardes the ſouthwards into Finland, that a ſhip with good freſh way ſhould force be able to ſaile to the end of it in 5 dayes upon the fartheſt end of this North Bodem lieth the Towne Toreu, there Sweden is parted from Finland.

Alandes. At the outermoſt rocks of Finland on the Alandts-haf lye 3 Ilands, Ercke, Kaſtelholm & Corpe. Ercke is the weſtermoſt

Ercke. of all, and the outermoſt, from thence goeth in the Corpe

Corpe. ſound, N.E. alongſt thwart of Caſtelholm and Corpe. Corpe lieth within the other Iland, and from Corpe you may edge over into the Liet of Abbo, which commeth running of from Utroy: you may alſo ſaile up into this channell about behind Lipland, and ſo come out into the North Bodem.

Utroy. Utroy is a great Iland, upon it ſtandeth a great maſt with a tarr barrel for a beakon, & lieth from the Iland Gorpe e. and w. about 9 leag. On the w. ſide of Vtroy goet up the Liet of Abbo, which lieth in ſtrit north and north and by eaſt, about 3 or 4 leagues, and then you come on againſt a great Iland. And then it lieth in alongſt that great Iland northeaſt into the Sound of Abbo. Abbo lieth at the end of that foreſaid great Iland. This

Abbo. Liet runneth up alongſt to the eaſtwards through betwixte the rocks about thirteene leagues, within it lieth a rock under water which is a Magnes or Load-ſtone, alſo the ground

Magnes. ſeemeth to be there of the vertue of the Lodeſtone, for when you ceme thereabouts, the compaſſes doe not ſtand, but run and tume without any certain ſtanding ſtill, until that you be at leaſt a league paſt it, and then they begin to ſtand right againe. From thence it lieth e. and s. and by ſ. al alongſt through the rocks unto the Rough Iland, to the w. wardes of it runneth the channel of Luys into the ſea, when you are thwart of it ſea,

Luys. you may ſee the Land of Revel. It is there betwixte them both, to with, betwixte the Out-rockes and Nargen, or the land thereabouts ten leagues broad.

The Outrocks of Luys, and the channel of Vtroy lye e. & w. about 21 leagues diſtant, although it be there betwixt them both all broken land, and full of rocks, yet nevertheles there are no havens nor channels fit for ſhips to come into.

From Luys alongſt without the rocks the channel of Elſenvos, the courſe is e. and by n. 15 or 16 leagues but Nargen or the Wolf, and the channel of Elſenvos lye n.n.e, and S. S. W. about 16 or 17 leagues aſunder.

The Coaſt of Lyſland.

The Iland Wranger lieth from Nargen e, diſtant 7 or 8 lea-

Wranger. gues, and 3 leagues E. and by S. from the Wolf.

Under Wranger is on both ſides good road and good anckor ground, eſpecially on the S. ſide, where there is a bay, there you may anckor betwixt the 3 points in 10, 12 or 14 fathom, accordin as ſhall be convenient, and lye ſheltred for a N. E. and eaſt, and alſo for a N. Weſt and weſt winde. You may ſaile round about Wranger, but from both points (as from the S. pointes, and from the north point) lye off ſome little riffes, whereof you muſt take heed, and be carefull in uſing the lead when you ſaile about by them.

About an Engliſh mile from Wranger lieth little Wranger, little

wranger. a little long ſmall Iland, lying about n. w. and ſ.e., which is rocky and foul, eſpecially on the n.e. ſide. From the ſ.e. point runneth of alſo rocky riff, whereof you muſt take heed.

On the S.W. ſide is good anckoring for N. E. & E. windes, anckor under it, ſo that the S. E. point lye about E. from you, there is good lying for N.E. and E. windes.

From the northweſt point runneth of alſo a litle riffe which you may found about in foure, five or ſix fathom, according as your ſhip goeth deepe, when as you will goe to anckor there, comming from the northwards, or about to the northwards off the Iland.

About a great league n. from the e. ende of Wranger, and 2 litle leagues n. and by w. from litle Wranger lieth a litle Iland, which by ſome is called Kuyken, but commonly is called the

Koexſchaer. Koexſchaer, which is a litle bare rock with a Warder upon it, you may ſaile round about it on both ſides, it lieth from the Wolf n.e. and by e. diſtant 2 great leagues.

From the Wranger to Eckholme, the courſe is eaſtſoutheaſt 13 leagues.

Three leagues by weſt the Eckholms lieth an Out-point, to the eaſtwards off it a bay, called the Monkwyke, there it is

Monkwyk. good anckoring for ſouthweſt and weſt winds in eight, ten, or twelve fathom. Betwixt this point off the Monckwyke and Wran-

Wranger lie 3 litle long Ilands, lying alongſt the coaſt of Lyfland, about a halfe league from the ſhoare, which are very foule and rocky, and almoſt nothing but rockes, whereof you muſt take heed, otherwiſe the coaſt betwixt them both is clean.

Eckholm. The Iland Eckholm is clean round about, and lieth about n. w. and ſ. e., it ſheweth it ſelf high at both ends, and in the middeſt with a valley. Under Eckholme is good anckoring at the n.e. ſide for w. & ſw. winds in 20, 22, and 25 fathom, and on the ſoutheaſt ſide for eaſterly winds.

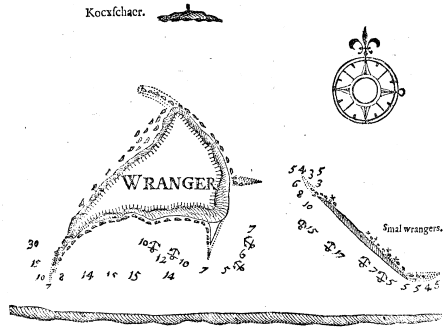
Five leagues to the eaſtwards of Eckholme lieth tho Caſtle

Telsburgh Telsburgh, thwart of it lieth of a ſhould from the ſhoare, but you may found it in 8 or 9 fathom. From thence the coaſt lieth alongſt moſt eaſt and by ſouth unto the road of the Narve about 16 leagues, it is altogether cleane without fowle ground, ſo that you may alſo ſail alongſt there by night in 8 or 9 fathom without feare.

Northwards from this coaſt in the fareway betwixt Eckholm and the Iland of High land lie the Chalck-grounds, Holts, the litle and great Tutters, al of them with very dangerous foule grounds and ſhoulds. Eckholm and High-land lye E.N.E and W.S.W. diſtant about 11, or 12 leagues. About 2 or 3 leagues eaſt and by north, or eaſtnortheaſt from Eckholm, and alſo two leagues from the main land lye the Chalck-

Chalck-grounds. grounds, which are foul grounds, almoſt 3 leagues long under water, & ly to the weſtwards w. n. w. into the ſea, and to the eaſtwards almoſt to the riſſe of the Hoſſes. Some ſay that they

Great and ſmall Wranger.



are faſt to it, ſo that you ſhould not be able to ſail through betwixt them.

Hoſſer. The Hoſſes lieth S.S.W. from High-land about 3 or 6 leagues, which is a long ſmall Iland foule round about, with two foule riſes that lie out, the one lieth of from ſwhat to the eaſtwards, & the other to the w. wards unto the Chalck grounds.

Iſle Tutters. Northwards from the Hoſſes ly the litle Tutters, & 2 leagues to the e. wards of the litle Tutters ly the great Tutters.

The litle Tutters are two Ilands not high, but round about rocky, riffy, and foule, they lie ſouthweſt and ſouth about 3 leagues from High-land.

Great Tutters. The great Tutters lye from the litle Tutters eaſt about 2 leagues, and from Highland ſouth and by eaſt alſo two leagues, there lieth of from it alſo a great ſtony riffe weſtwards toward: the litle Tutters: there lieth alſo betwixt the litle and great Tutters a row of rockes, whereof you muſt take heed when you will faile through betwixt them.

Southeaſt and by S. about 2 leagues from the great Tutters lieth a ſhould of 5 fathom. He that will faile to the S. wards off theſe foreſaid Ilands and ſhoulds towardes the Narve, may be mindfull thereof, it lieth about 4 leagues to the eaſtwards of Telsburgh. two or 3 leagues from the ſhore.

Betwixt the great Tutters and Highland lieth a ſhould up-

Showld. on which there is no more then 6 foot water.

S.E. a great halfe league from the S. end of Highland lieth another ſhould of a fathom & a halfe and 2 fathom deep.

To the northwards off all theſe foreſaid rocky Iland and foule ſhoulds, lieth a litle Iland wherevpon ſtandeth a Maſt for to know it by, and to diſcerne it from the other litle foule Ilands, that you may come indifferent neare to, but not to neare, for it is alſo ſomewhat rocky and foule, but not farre of, it lieth from the litle Tutters W. and by north about 7 leagues, from the Iland Highland ſouthw. eſt and by w. at leaſt 4 leagues, but from Wranger or the Koexſchaer eaſt and by N. 20 leagues.

He that will faile off from Wranger towards the Narve alongſt to the northwardes of theſe foreſaid grounds, and doe get ſight of this litle Iland with the maſt, may thereby the better know to direct his courſe, but is is not wiſdome to ſail through theſe foreſaid ſhoulds, except for them that are very well acquainted.

Highland or Hoghland. The Iland Highland or Hoghland, is about 3 leagues long, and not a league broad, lying S. S. E. and

& n. n. w. when you come out of the weſt, it ariſeth in 3 hommocks, ſo high to looke to as Coll in the Sea wreach, upon the N. end and upon the E. ſide it doth ſtand al ful of trees. A litle about the N. point on the E. ſide is a litle bay thwart of a Boers houſe, there it is clean ground and good lying for weſterly and ſouthweſt winds, ſomewhat to the ſouthwards of it, not very far from the ſhore, lieth a great rock above water. At the N. end is alſo good lying for a S. E. wind. Alongſt the S. W. ſide you may alſo anckor every where in 16, 17, or 18 fathom, cloſe by the land for E. & N. E. winds.

From the ſouthweſt ſide of Highland unto the road of the Narve, the courſe is ſoutheaſt about 16 leagues, and then you run through betwixt the Highland and the Tutters.

Likewiſe when as you ſaile on northweſt from the reade of the Narve, then you run alongſt betwixt the Tutters & Highland, but you muſt be very carefull, and take heed of the foreſaid ſhoulds, which ly betwixt them both.

The land of the Narve men do know by 3 high hills, lying a league to the weſtwards, or to the ſouthwards of the road, and a league further to the weſtwards ſtand ſome little houſes upon the high land.

The Narve. The towne of the Narve lieth upon a river about two leagues within the land. For to faile in there men were wont to look out for a long hill, which lieth on the ſouth ſide within the rivers mouth, and at the eaſt end goeth downe ſomewhat ſteep, with ſome high trees to the eaſtwards of it, then they brought one woodden tower off the Narve to the northwards of the foreſaid trees, and did run in ſo with it. When as the eaſternoſt of the 3 foreſaid hills (a league to the Weſtwards of the rivers mouth) come over a little hommocke, which lieth on the water ſide, then they where upon the barre of the rivers mouth, there was upon the ſhouldeſt ten foot water, and then they ſaile up the river, that was wont (for ſome yeares) to be ſo, but it is poſſible ſince that time more or leſſe altered, like as it doth oftentimes happen in ſuch rivers.

The road of the Narve to the Ruſſe-haeck, the courſe

Ruſſe-haecks. is N. N. W. five leagues, which lye with many rockes a good wayes of from the ſhore. The point thwart of it is called the point of Caſtrum after a little town (ſo called) lying there.

From the Ruſſe-haecks n. n. w. 5 league lieth a litle Iland, called Rette Sarre, from which there runneth of a rif S. into

Rette Sarre ſea. From this Iland, or a league to the w. wards of it unto the Summers, the courſe is S and N. 4 or 5 leagues.

Eaſt ſoutheaſt from Highland, and 3 leagues from the Ruſſe haecks lieth another ſhould, called the Slimme-grounds, it lye

Slimme-grounds. long and ſmall alongſt n. n. w. and ſouthſoutheaſt, with hard wind you may ſee it breack in 4 or 5 places: when it is Weſt from you about halfe a league, there it is two fathom deep to 3, 4, 5, and 6 fathom uneven ground, ſome off the rocks of it lye alſo above water.

From the Ruſſe-haecks to the Rode-hell, the courſe is N. Eaſt about 24 leagues, betwixt them both on the Ruſſe-ſide, runne alſo divers rivers into the land, but there it is no trade. The land there lieth in a great bight, it lieth firſt from the Ruſſe-haecks unto the River of Nioa, or Oraſchacke E. N. E. about 13 leagues, the parteth Ruſland from Finland by a great Meer, or water called the Lading.

The lading

The ſtrong caſtle of Noetenburg lieth there alſo upon a ri-

ver which lieth out of the Lyflands or east sea into the foresaide Lading. Further the lande lieth n.ne. and n.and by w. about 13 leagues unto the Rode-hell.

For to sayle from the Revell to Wyburgh.

FRom a litle to the n. wardes of the Kockschaer to Higland, the course is E. and by N. a litle more easterly 23 leagues, with that course you runne alongst a litle to the N. wards of it. You may saile about Highland on both sides, but alongst to the n. wardes of it is the right fare-way for these that are bound to Wybrough. A halfe league N. and by W. from Highland lieth a suncken rock under water. For to avoid it you must saile alongst by Highland. Further the lying of Highland hath been described here before.

Summers. From Highland to the Summers, the course is e. and by n. 7 leagues. Summers is a rock or little Iland allmost like the Eartholms, it sheweth it selfe in 3 hommocks. A little to the eastwards of it lye some rocks above water: you may faile about on both sides of Summers, and also throug betwixt Summers & the foresaide rocks that lye to the e. wards of it: but about to the n. wards of it is the right fareway, you can not also runne alongst farre to the n. wards of it, for a halfe league to the n. wards of it, it is very foule and full of little rocks, some above and some under water.

Goefschaer off greate Fisher. From the Summers to the Goefschaer, the course is e. n. e. 7 leagues. The Goefschaer which by some is called the great Fisher is a long and broken Iland of seven rocks, therefore it is also called the Seven-rocks, it lieth not farfrom the land, so that you can not get sight of it, before that you come nearer it, it sheweth it selfe when you shall first see it, in 4 hommocks, as if it were 4 litle low Ilands, you must leave it lying a halfe league on the larboard side, for to avoid a suncken rock which lieth of from it S. S. E. a great shot of a calt peece. When the water is not very smooth, but a little grown, you may perceive it by the breaking of the water: you may also well saile to the northwardes of this suncken rock, to wit, through betwixt the suncken rock and the Goefschaer, then you must run indifferent close alongst by Goefschaer, when it is n.w. and by north from you, then you are past the foresaide suncken rock, whether that you run alongst to the northwardes or to the southwardes of it.

litle Fisher From the Goefschaer or great Fisher to the litle Fisher, the course is northeast and by east 3 leagues. The litle Fisher is a bare round rock which lieth not farre from the land: when you come neere it, you may know it wel from the other rocks, because there lye none farre from the land alore, you may saile about in both sides, but alongst to the S. wards of it is the right fareway. About a shot of a calt peece southeast or southeast and by east from this litle Fisher, lieth a black rock with the top even above water, almost like a buye upon the Flye-streame, to see to a farre of as if it where a Scales head. This rock you must leave on the starboard side, and run through betwixt it and the Fisher.

He that must turne to windwards hereabouts, let him not come very neer this rock, for men doe hold that there lie more rockes by it under water.

Both the Fishers are otherwise clean round about; so that you may also finde road under them.

Corsines. From the litle Fisher to the point Corsines, which the Lubickers doe call Kruyfoort, the course is e. n. e. somewhat easterly a league. Corsines is a point going of low of the maine land, not very clean, which you must leave on the larboard side. To the w. wards of Corsines lye 2 litle Ilands close to the land. Thwart of the point lieth a rock allmost like a litle boat, you may runne about by it in 4 fathom and a halfe, but nearer. On the east side of that point you may anckor for Westerly winds in 5 or 6 fathom.

About 2 leagues thwart of from Corsines, lye very many rocks, some one fathom, some a halfe fathom, some more, and some leste under water, you may not goe out of the fareway without great feare and danger. It is impossible to describe all the uneven grounds, the great multitude of rocks and rocky shoulds which are lying thereabouts.

From Corsines to the Iland Rodehell, the course is n. e. and by n. about 3 leagues. Rodehell is a greate rough Iland with a saddle in the middeft, which you must leave lying on the starboard side. The north point is a red point, there stand up long staves over end, like unto a Warder in Norway, you must goe close alongst by them, or you may run in amidst the channell, according as shal be best convenient, but you not goe close by the north point over against it (which the Dutch shippers doe call Ian Lamberts ons point) because of a stony and steepe litle riff which lieth of from it, but you may runne about by it upon your lead in seven or 8 fathom, but may come nearer the right fareway betwixt them both is fourteen and fifteen fathom deepe.

Betwixt the point of Corsines and the Rode-hell, it is not without danger to turn to windwards, especially you must be very carefull not to run to far over to the Soutwards, but to the Northwards, towardes the maine Land, it is indifferent cleane: It is there in the fareway fifteen fathome deepe, fort clay ground.

For not to misse this foresaid channel; or to the n. point off the Rodehell, then take marck out a stearne of the litle Fisher, bring that even without the point of Corsines, and keep it so standing sailing towards the Rodehell, and so you shall not faile to fall right before the channell. This is a sure marck where upon you may truft. If you fall somewhat to the S. wards of the foresaid channell, you can see opening, but seemeth to be all whole to the maine land, so that men (that are not wel acquainted) might not know were to seek the channel, but failing to the northwards, the channell doth open it self.

When as you shal be then within the foresaid point of Rodehell, you may anckor there where you pleafe, and fetch a Pilot from the land, which may bringh you up to the towne Wybrough. It is there within in fifteen fathom deep, and good for clay ground.

If you will (being come within the Rode-hell) faile up to Wybrough, then goe on east and by south a shot of a calt peece unto a black point, leave that about two cables lengths on the larboard side, for there it is not cleane. Being a little past this black point, then go on N. E., on eastnortheast a halfe league, and then you shall come against a grace white sand-bay, but before you come by this sand-bay, you shall meet a rock with a gray stone like a buye upon the Flystream, leave that foresaid rock on the starboard side, and the Gray-stone on the larboard side, and runne amidst the channel through betwixt them both, there it is three fathom deep. It is wiledom to saile up there for him that hath not beene there before, but it is best to anckor a little within Rode-hell, and to let him be brought up by a Pylot.

The Coast of Finland betwixt Elfenvos, and Wyburgh.

THe Channell of Elfenvos lieth from Nargen or the Wolfe N.N.W. and S.S.E. about 16 or 17 leagues from Wrangger south and north.

Upon the west side off the channel lieth a high round rock, Rubben. whereupon stande the 4 mast, or Warder, called Kubben, over against upon the other side of the channell lieth a long rocke or Iland called Sautum, and an halfe league to the eastwardes Sautum. of Kubben lieth another great round rock called Mely. These Mely. three rockes are the best marckes to be known of this foresaid Channell.

Betwixt Kubben and Sautum lieth that Channell in from thence northeast until that you be within the rocks, and then northnortheast and by east, until you come before the river of Elfenvos, there you may anckor betwixt the rockes in good Elfenvos. anckor ground.

There runneth also a Liet through within the rocks, where you may saile alongst, and come out againe into the sea by Putsagre, this runneth aboute very crooked with many bighes, but it is Pilots water.

If you will faile to Borgo, then runne a league to the East- Borgo. wards of the foresaid rock Mely, there you shall finde two high bare rocks, called the Tolcken, runne in betwixt them both, but neereft to the eastermoft, which is cleane and cleare close to it, and lieth fomewhat further to seawardes then the westermoft. W.N.W. from this eastermoft high rocke, lieth a litle Rocke above water, leave that on the larboard side. When as then you shall be by this eastermoft rock, which you leave lying on the starboard side of you, then goe on northnortheast to Schoeland, that is a rough Iland of from which lye many bare points, all which you muft leave (with the Iland also) on the starbr and side, then run alongst close by these bare points. When you are past them, goe then northeast and by north, fomewhat easterly, and so you shall see two other bare rockes, the eastermoft of the Greatmesse off a shippe very steepe and high, but the westermoft is small, run in there betwixt them: the Sound is called Cramer-poort. When you are within them, Cramer- goe then in north and by east, and then you shall presently poort. meet with a greate Iland called Cramer, leave that on the star- Cramer. board side, and so you runne rigt on with an other greate Iland, called the Hester, leave that on the larboard side, and anckor betwixt the two Ilands Cramer and the Hester, there is good anckor ground.

From the mouth of the Sound of Elsenvos to Peltingsound, Peltingsound, the

the course is east, and east and by south, 11 or 12 leagues. Peltingsound lieth in northeast, there you lie within a great many great rockes, or litle Ilands, sheltred for all windes. You may saile from thence through within the rocks al over where you desire to be, of you have a good skilfull Pilot.

From Pelting schares to Putsfagre it is five leagues. Putsfagre is a great Rock, or Iland, lying from Highland northnortheast distant five or sixe leagues. About a league south from this Iland Putsfagre lieth a suncken Rock, which you Putsfagre. must avoid. He that will saile through within the rocks, let him take a Pilot from Putsfagre, that may bring him through the rockes where he defireth to be: You may run in there every where, and within the rockes it is most all over good anckor-ground.

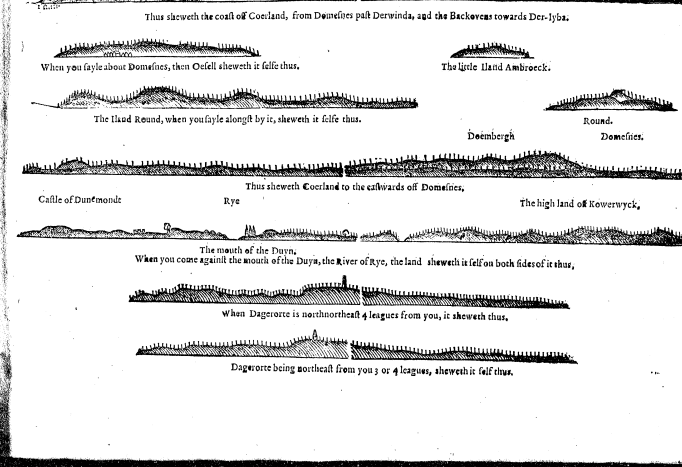
Epelschares. From Putsfagre to the Epelschares, the course is east, 7 leagues: there are a great many out rocks, a little to the eastwards of them lieth a great rocke called Quadeschare which you may saile round about.

Goefchaer From Epelscharen to the Goefchare, the course is east 10 leagues. That and the lying of the land, and dangers from thence eastward, hath beene described here before.

How these lands doe lye one from the other, and from other lands.

From Derwinda to Lufcroorte northeaft and by N.	4 leagues
From Lufcroorte to Domefnes eaftnortheaft	22 or 23 leagues
From Domefnes to Round E. and by N. fomewhat eafterly	8 leagues
From Round to Duynemonde or the mouth of the river of Rye fouthfoutheaft	16 leagues
From Domefnes to Rye or Duynemond foutheaft	21 leagues
From Duynemond to Lemfael or Sales N.N.E.	12 leagues
From Duynmond, or the mouth of the river Rye to the Iland Rin north and by weft	23 or 24 leagues
From Round to the Iland Kinne eaft and by north	10 leagues
From Domefnes to the fouth ende or the rode of Oefell N.w.	3 great leagues
From Domefnes to Ambroeck N.N.E.	5 leagues
From Round to Ambroeck northweft and by N.	1 leagues
From the fouth ende off Oefell to Arentsbergh N. E.	10 leagues
From Lufcroorte to Houbrough w. and by S. fomewhat foutherly	40 leagues
From Lufcroorte to the point of Alant of the Ilands N.N.w.	59 leagues
From the fouth poynte of Oefel to Hondforte northnortheaft and north and by weft	16 leagues
From Hondfoort to the poynt of Dagerorte N. N. w.	8 leagues
From Dagerorte to Sybunghes eaft and by north	7 leagues
From Sybunghes to the Oxeholme and Grass holme N. E.	4 or 5 leagues
From the Goat holme to the great Tree upon the fouthealt	8 leagues
From the northeaft point off Oefel to Parno E. and by S. about	16 leagues
From Arentsbergh to the N. E. point off Oefel E. and by S.	8 or 9 leagues
From Ambroeck to the northeaft point off Oefel northeaft fomewhat eaferly	9 or 10 leagues
From Round to the N. E. end or Oefel north, fomawhat wefterly	13 leagues
From Lemfael to Parno northnortheaft	9 leagues
From Dagerorte to the Rofchend fouthweft and by fouth	80 leagues
From Dagerorte to Eaftergore fouthweft and by weft	37 leagues
From Dagerorte to the Godfche fand weft and by fouth	27 leagues
From Dagerorte to Borchfchoer weftnortheaft	21 leagues
From Dagerorte to the point off Alant of the Ilands northweft and by north 20 leagues	18 leagues
From Sybunghes to Oetgent holm eaft and by north	7 leagues
From Oetgent holm to great Roge eaft and by N.	4 leagues
From great Roge to Surp eaft	4 leagues
From Roge to Nargen eaft	5 leagues
From the fouth end off Nargen to the Iland the Wolf, eaft and eaft and by N. 4 leagues	4 leagues
From Revel to the Wolfe north	5 leagues
From Oetgent holme to the outcrofs of Luys N. and by E.	15 or 16 leagues
From Sybunghes to the channell off Abbo, or Ottoy N. w.	20 leagues
From Ottoy or Abbo to the channel off Luys, the course is eaft	21 leagues
From Luys to the channell off Elefvos e. and e. and by n.	15 or 16 leagues
From Nargen to the channel of Abbo the course is w.n.w.	18 or 23 leagues
From Nargen or the Wolfe to the channell off Elfenvos northeaft and by N. 16 leagues	16 leagues
From Nargen the outrocks off luys N. w. and by N.	13 leagues
From the VVolfe to Peltingfchares N.E. fomewhat eaferly, or N. E. and by E. 20 leagues	20 leagues
From the channell off Abbo to Boefchaer S. w. and by S.	36 leagues
From the Iland the VVolfe to VVrager eaft and by fouth	3 leagues
From the VVolf to the Kockschaer eaft and by north	3 leagues
From the Kockschaer to the eaft end off Wranger, fouth and by eaft	1 league
From the Kockschaer to litle Wranger fouthfoutheaft	2 leagues
From Wranger to Eeckholm eaft and eaft and by fouth	13 leagues
From Beckholm to the Caftle off Tallburgh eaftfoutheaft	1 leagues
From Tellburgh to the roade off the Narve eaftfoutheaft	16 leagues
From the road off the Narve to the Ruffelhaecks N.and by w.	5 leagues
From the Ruffelhaecks to the River Niox, or Orefchalck, E. N. E.	13 or 14 leagues
From Orefchalck to the Rode-hell north and by eaft	15 or 16 leagues
From the Ruffelhaecks to the Rodehell N. E. and by N.	27 leagues
From Ruffelhaecks to the Iland Retre Sarre north	5 leagues
From Retre Sarre to Sommers N. N. w.	4 or 5 leagues
From Eeckholme to the Iland Highland eaftnortheaft	11 or 12 leagues
From the weft fide off High-land to the road off the Narve fouthealt and by south	16 leagues
From Highland to the litle Tutters fouth	3 leagues
From Highland to the great Tutters fouth	3 leagues
From the Iland with the Mall to the litle tutters eaft and by fouth	3 leagues
From the Kockschaer to the Iland with the maft E. and by fouth	16 leagues
From the Iland with the mall to the Highland N.E. and by eaft	4 leagues
From the Kockschaer to Highland eaft	23 leagues
From Highland to the Sommers eaft	7 leagues
From the Sommers to the Goefchaer or great Fifher, northeaft fomewhat eaferly	7 leagues
From the great Fifher to the litle Fifher N. E. and by eaft	3 leagues
From the litle fifher to the Corfines E.N. E. fomewhat eaferly	1 league
From Corfines to the Rode-hell N. E. and by N.	3 leagues
From the Sound of Elfenvos to Peltingfound eaftfoutheaft	11 or 12 leagues
From Peltingfound to Putsfagre eaft	8 leagues
From Putsfagre to the Epelfchaer eaft	7 leagues
From the Epelfchaers to the Goefchaer or great Fisher, eaft	10 leagues
From Eeckholm to Elfenvos N. w. and by N.	8 leagues
From Highland to Peltingfchares N. w. and by weft	1 leagues
From Highland to Putsfagre N. N. w.	7 leagues

How these Lands doe shew themselves at Sea.



In this forme appeareth Dageror, when the towre is east and by S., and the northermost point is ii. from you 4 leagues, and then you may even see it in clear weather from below.

When as the towre upon Dagerorte is f.e. and by s. and the land to the eastwards of it is f.e. 4 leagues from you, then it sheweth it selfe thus. Syburghnes.

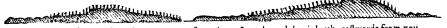
When the towre of Dagerorte is f.f.e. from you, then it sheweth it selfe (with the land to the westwards of it) thus. Dagerorte. Syburghnes.

High hill. Thus sheweth the land of Dageroort towards Syburghnes.

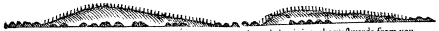
Thus sheweth Syburghnes when the high hill is f.f.w. 4 leagues from you. there it is 35 and 36 fathom deep.

Thus sheweth Revell when you are by the Ravelstone without the VVolf.

The forme of Oetgens holme. N.W.point. Midland. The Iland Wranger sheweth thus, when it is f. e. and by e, 3 leagues from you. S. E. point.



Thus sheweth Eckholm, when you come from the westwards, and that it lyeth eastwards from you. S. east point. North west point.



Tus sheweth Eckholme, when you come from the eastwards, and that it is to the westwards from you.

In this forme sheweth the Iland the Hofues, when you are to the southwards of it, and saile alongst by the coast of Lyfland. The little Tutters show them selves thus, when the lye to the northwards from you.

Thus sheweth the land to the eastwards of the Narve, when you come thereabouts, comming off from the High land.

Thus sheweth the great Tutters, when you saile alongst by the coast of Lyfland, and that they lye to the northwards from you. In this forme theweth the land to the eastwards of the Narve, when you come off from the Highland.

Thus sheweth the Iland High-holme, when you see it comming from the westwards.

The fourth demonstration,

Where in are set forth off Gothland and Oland, as also Swet-land coastes, untill you are past Stockholme.

FRom the south-end of Oeland to the south-end off Gotland, the course is eastnortheast 23 or 24 leagues, but to the Carels northeast 27 leagues.

The course alongst the fareway, for to saile from the south end off Oeland through betwixt Oelandt and Gotlandt, is northeast and by north.

The Iland Oeland is twenty four leagues long, and a league and a half broad, when men saile alongst by it, they may counte eighteene towers upon it, which are all flat: the east coast is a clean coast, and lieth northnortheast and southsouthwest, but about 7 or 8 leagues to the southwards of the north end, there shooteth of a little riffe, thwart from the land a great half league into the sea, which men must avoid: by it goeth in a little haven, where indifferent ships may goe in, otherwise Oeland hath no havens.

From the south end off Gotland runneth off a foule stony riffe, a good wayes into the sea, you may run about by it upon the lead in 7, 8, and 9 fathom.

The great Carells. The Carels are two little high Ilands, lying on the west side of Godland north end by west about seven leagues from the south point off Gotland, east and West, about a halfe league out from the other, the greatest is called the greate Carell, and lieth a great league from the land: the smallest, the little Little Karel Carell, and lieth about a halfe league from the shoare. When you come from the southwards, the greate Carell sheweth it selfe in two hommocks, and the little Carel in one hommock, and neere to the land. Under the little Carell is round about good roade, in eight, nine and ten fathom, and is round about cleane and cleare; without foule grounds. Men doe anckor betwixt it and the land, in sixe or seven fathom, there it is good lying for all windes, as well for them that are bound to the eastwardes, as to the westwards. He that shall be to the northwards of Gotland, and shall get a countrarie wind, you may also anckor under the great Carell, but under the little Carell is farre the best roade. Under the great Carell men may anckor, on the west and east side, but on the north and south side it is foule, therefore come no nerner it by night, then in eleven or twelve fathom. Betwixt the two Carels it is thirteen and fourteen fathom deep.

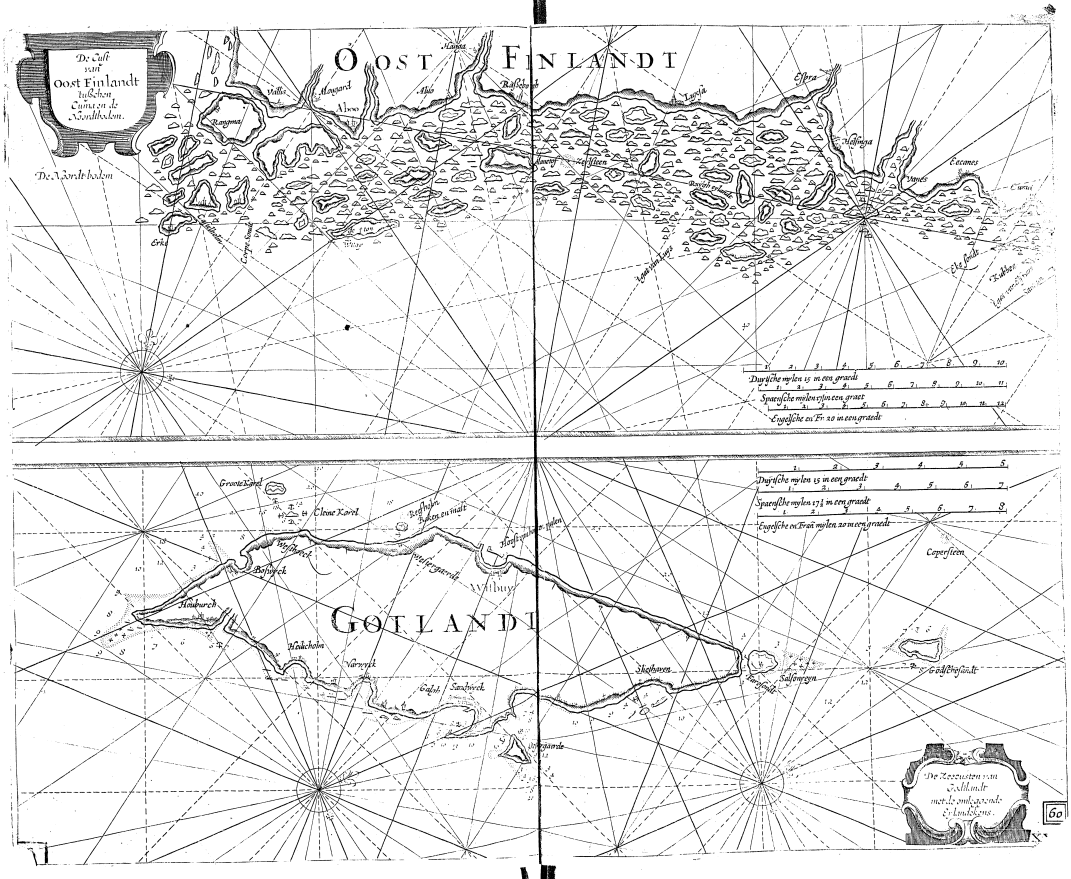
Bofwyke. About halfe wayes betwixt the Carels and the south end of Gotland, southsoutheast from the Carel, lieth the haven Bofwyke: thwart of it runneth off a riffe, a good wayes from the shoar, come no nearer it then in seven or eight fathom. When you are thwart of the foresaid south point, about a halfe league from the land, and will saile alongst to the northwards off Gotland, you must not sail on more northerly then northwest, as well for to avoid that riffe of Bofwyke, as for to saile aweather the Carels.

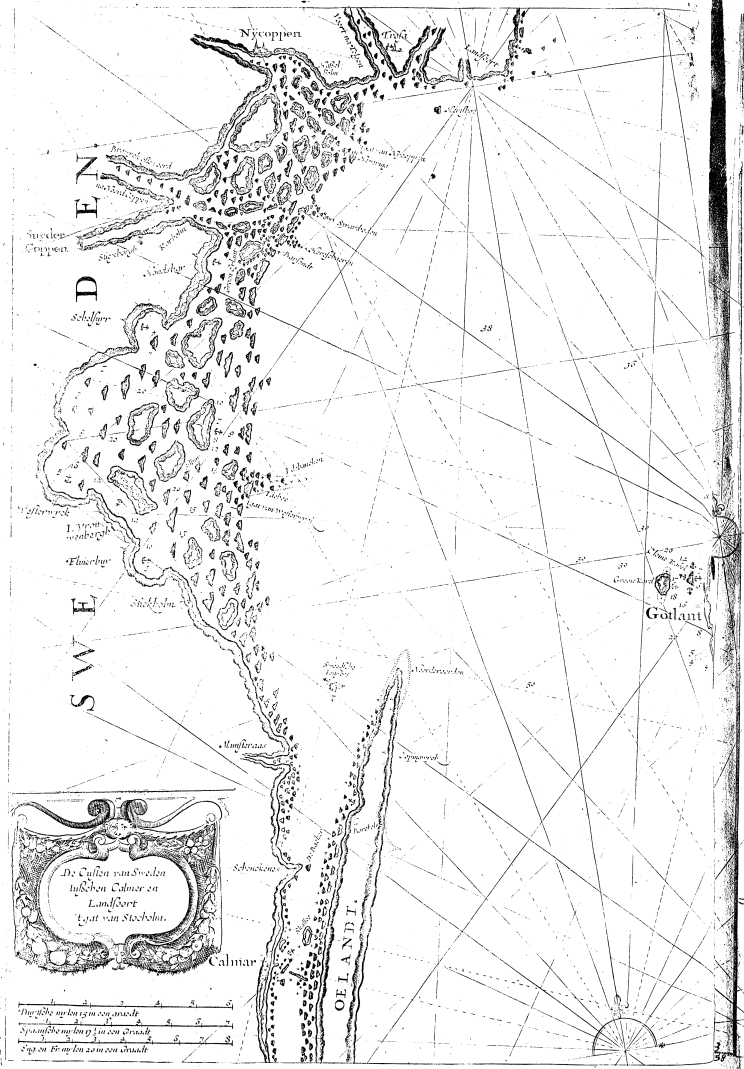
Reefholm. Three or four leagues northwest from the Carel, lieth the Iland Reef holm, thwart of it men doe run into Westergorte: you may saile and anckor round about it. A little to the northwards of it lieth the northwest point of Gotland.

Wisbuye. Two leagues to the northwardes off the high point lieth the towne Wisbuy, about 7 leagues northeast from the Carel. Men were wonte in old time to lye there behind a great head or Cheft.

Wisbuye hath beene in tymes past a famous marchant towne, where was wont to be driven great trade of marchandize, but it is now through the will of God, altogether fallen down, and come to nothing. The Hance towns have a long time there held their staple. The old Sea laws were made there, and also the old famous Read-carde. Men may see yet

to


De Cust vant Oost Finlandt tusschen Cam. en de Nordhelm.
De Nordhelm
OOST FINLANDT
Gotlandt
Duytsche mylen 15 in een graedt
Spaensche mylen 17½ in een graedt
Engelsche en Fra: 20 in een graedt
De Reeduste van Gotlandt met de omleggende Eylandekens.
60


Nycoppen
SWEDEN
Gotland
OELANDT
Calmar
Stockholm
Caarte van't Stockholmse Liet.
De Custen van Sweden tusschen Calmer en Landsort Lyat van Stockholm.
Duytsche mylen 15 om een Graedt
Spaensche mylen 17 1/2 om een Graedt
Engelsche Mylen 20 om een Graedt

to this day many old mirous houses of cofslu marble and newen stone, whereby men may partly perceive and judge, what manner of halteneſſe there hath been.

From Wisbuy the coast lieth forth n. e. towards the end of Gotland about 9 leagues. But from the Carell to Gotſhe sand the course is n.e. 21 leagues: there is a little Iland, whereupon dwelleth no people, and ſtandeth ful of trees: You may faile round about it, which hath a white ſtrand. From the n. w. point thereof ſhooteth of a litle riff, and likewiſe one from the ſouth Point, a good wayes of into ſea, towards the N. end of Gotland. On every ſide of Gotſche ſand, you may anckor in 6, 7, 8, 9, 10 and 12 fathom all clean and good anckor ground, but theſe foresaid riffes you muſt avoide. It lieth n. n.e. 7 leagues diſtant from Faro, the N. end of Gotland, when you lie there under it at anckor, you kan not ſee Gotland.

The Copperſtone lieth from Gotſchesand W.N.W. and N. W. and by W. diſtant 3 great leagues.

Upon the S. end of the E. ſide of Gotland ſtandeth a high tower, called Houbrough, and thereafter the S. end of Gothland alſo is called Houbrough. By it goeth in a litle river, before which you may anckor in 6 or 7 fathom.

Five leagues N. Eaſt from the foresaid South point lieth Heyligh holm, which is a good haven, but by reaſon it is but little uſed, it is therefore alſo but little known.

Two leagues to the eaſtwards of Heyligh-holme lieth the haven of Narwyck, upon the eaſt ſide of the haven lieth a long rock, by which you muſt run in, and leave another ſharp rock on the larboard ſide, within the haven you may anckor in 4 or 5 fathom.

Two leagues to the eaſtwards of it lieth Sandwyk which is a good haven for a weſt, northweſt, north, eaſt, and ſoutheaſt winde, and lieth in about north, a ſouth winde bloweth there open in: On the eaſt point, (which is a low bare point) lieth a Aolme, which is faſt to the land, upon it ſtandeth a Warder: From this point runneth of a litle ſand-riffe, which you may found about in 5 or 6 fathom. Within at this Holm is a bridge of Maſts which lieth of a litle from the ſhoare. If you wil anckor there in the haven, then run in alongſt by the eaſt ſhoar, untill you come within the bridge, and anckor there neareſt the eaſtſhoare, ſo that the foresaid eaſt point do ſtand ſoutheaſt, or Southeaſt and by South from you, in 4 fathom, 4 and a halfe, or 5 fathom, there is cleane clay ſandground, and very good lying for weſt, north and eaſt winds.

Eaſtergore A league to the e. wards of Sandwyk, lieth the Iland of Eaſtergore, about halfe waies betwixt both the ends of Gotland n. e. from the S.w point, this is a bare Iland, without trees. Under this Iland is very good road for all windes, as wel for them that are bound to the e. wards, as to the w. wards. Comming from the w. wards, or from Sandwyke alongſt by the land, then is the n. w. point, (which is a high bare gray point) hidden behinde a point of the maine land of Gotland, ſo that it ſemeth a far of to be no Iland, but comming near it, it openeth it ſelf, that you may ſee large enough thorow betwixt them: faile in there betwixt them both, in the midſt of the channel, it isthere cleen and clear, but ſomewhat uneven of ground, to wit, 8, 10, 12, & 14 fathom, but you need not to feare. If you wil anckor under it for n.e. or e. winds, then ankor betwixt the land & the Iland, ſo that the aforeſaid bare gray n.w. point ſtand n., and the foure thermoſt e. from you, in 9 or 10 fathom. Or if you wil anckor for a S.,S.W., or W. winde, then run further in about by that a foresaid bare gray point, bring it S.S.W. from you, and anckor there in 7, 8, 9, or 10 fathom, there it is clean ground of ſmall white and black ſand. A litle to the northwards of the Iland is a great Bay on Gotland, there you may alſo anckor in 7 and 8 fathom, for weſterly winds.

If you wil ſail in or out, to the n. wards of Eaſtergore then com not very near the Iland, becauſe there lieth of a riffe from the Eaſt point farre into the Sea, which is a great half a league without the land, not deeper then 2 fathom and a half ſtony & very uneven, & is to be thought, that nearer to the land it is ſhoulder and fouler. From the S.E. ſide runneth of a flat, a good wayes to Seawards, at ſome places not deeper then 3, 4, and 5 fathom, and alſo very uneven, whereof you muſt take heed.

Four leagues N. and by E. from Eaſtergore lieth a haven, called Sliet or Slict haven, lying in n and n. and by w., behinde ſome little Ilands, there it is good lying for eaſterly, weſterly, and north winds. Upon one of the northermoſt little Ilands ſtandeth a ruinous church. You muſt come in there alongſt by the ſhoare from the ſouthwards. From thence to Faro-ſound the coaſt lieth n. and by w. 2 leagues.

Farosound you may run into, in 2 and 3 fathom water, there ſtandeth a church with a flat ſteeple upon the land. From Faro ſound lieth a foule daugerous riffe, a league and a halfe, or 2 leagues into ſea, call Salſontcyn, you muſt take very good heed thereof, when you wil run about to the n. wards of Gotland.

From Farosound to Gotſche ſand, the course is N. N. E., about 7 leagues.

A halfe league to the n. wards of the towde Calmer, to wit, a litle to the n wards of the road lieth an Iland, called Skalloe, Skalloe. which you muſt leave on the ſtarboard ſide, when you are bound from Calmer to the n. wards. It is different cleane upon the weſt ſide, but from the Sweede ſide there over againſt it runneth of a ſtone riff, almoſt unto the Iland. Upon this riffe through there, or over that ſhould, for one that is not there very well acquainted: It is alſo Pilots water.

Foure leagues to the n. wards of the Calmer, on the Sweeds ſide, lieth an out point, called Schenknes, or Skegneſſe, thwart Skenkneſs. and Skallo it is very uneven of depths. The Baker

About 2 leagues more northerly over againſt it, on Oeland Borckholm. lieth Borckholm, a litle to the n. wards of it lieth Copingwy- Copingwyke. ke, where men do lade many Toomb-ſtones and other ſtones, with a northerly winde it is bad lying there.

Northweſt or ſomewhat weſterly from Borckholm, about three leagues on the Sweeds ſide, lieth a haven in the rockes, where men do lade Beames, to the n. wards of it, n. w. & by n. Munſteraas. from Borckholm lieth Munſteraas, that is a good haven alſo for very great ſhips.

From Calmer to the Sweeds Ioufer, the course is N.N.E. Sweeds. 9 or 10 leagues. This is a round rock, and very high, you may Ioufer. ſee it alongſt over Oland, being a good waye to the e. wards of Oeland, it is not very great, but clean round about, ſo that you may anckor neare under it on every ſide in 18 and 19 fathom, but by reaſon that it is not broad there cometh in (with hard windes) a rowling Sea.

From the Sweeds Ioufer to the channell of Weſterwyke, or Silbuy, the course is n. n. w. 8 leagues, but from Northeroordenden the n. end of Oeland n. w. 9 leagues.

The channel of Weſterwyke and Silbuy is called Ideſound, Ideſounds. alſo 2 great rock lying on the north ſide of this channell, called Ydelhoe, of from it lie many rocks, ſome above and ſome under water 2 great leagues to ſcawards which are called the Idebanks. Idebanks.

He that will faile from the n. end of Oeland towards the bar ſound, and by bare windes doth come a litle to the w. wards, without the right faire way, muſt be very carefull, and take good heed that he get not in amongſt them.

For to know the channel of Weſterwyke, you ſhall ſee a high bare rock, bring that n. w. from you, and faile ſo right it, and then you ſhall ſee another bare rock, whereupon ſtandeth a Fiſhers beakon, and alſo another to the S. wards of it, with a maſt, faile in betwixt the 2 rocks, the channell lieth in N. W. and N. W. and by N., when you are come within them you may faile alongſt through the rocks, where you deſire to be, to Silbuy, Stridholm, Fleurbuy Vrouwenbergh, Weſterwyke, up to the n. wards to Schelſuyr and other places more there it is all cleen ground, and 12, 15, 18, and 20 fathom deep.

If you be bound to Silbuy, then faile up to the n. wards or e. Silbuy. wards untill you come before the towne, and anckor there in the middeſt between the rocks in 7, 8, and 9 fathom.

If you be bound to Flourbuy, or Vrouwenbergh, then faile in weſt, and weſt and by north through the rocks till you come againſt the maine land, there you may anckor before Fleur- Fleurbuy. buy, or faile up northweſt betwixt the Iland of Vrouwenbergh and the maine land, and anckor there in 12 fathom, alſo you may run through that way until you come to Weſterwyke. Weſter- Weſterwyke lieth from Silbuy through within the rocks weſt, wycke. and weſt and by north, there it is in the faire waye 15 and 16 fathom deep.

From Silbuy to Schelſuyr it is northnorthweſt 7 leagues, al Schelſuyr. alongſt through within the rocks. Schelſuyr is a good haven, there lieth a rock in the havens mouth, about which you may run in on both ſides, and anckor before the town.

To the eaſtwards of Schelſuyr lieth the Houdtsbay and the Houdtsbay Green Iland, there it is alſo good anckoring. You may run Green from Silbuy alongſt by it untill you come in the Sound of Sou- Iland. thercoppen and Northercoppen.

From the channell of Weſterwyke to the Barſound, the coaſt lieth alongſt by the rocks n. and by e. 8 leagues. But from the n end of Oeland to the Barſound the courſe is n. and by W. 16 leagues, go not more weſterly, that you get not into the ſunckken rocks and foule grounds of the Idebanks.

The north end of Oeland runneth ſomewhat farre off flat. If you runne out cloſe by Oeland, and faile on north and by

weſt, then you run alongſt farre enough without the Idebanks, and alſo ſhall fall with the land about a halfe league to the S. Barſound. wards of Barſound againſt a deal of low out rocks. It ſeemeth a far of by reaſon of the multitude of rocks and little Ilands to be all firme land, but comming near it, it is all broken. You ſhal ſee there alſo an Iland by which there ſemeth to be a channel, but you muſt be further to the n.wards, run alongſt by the coaſt in 7 fathom, ſo longh until that you ſee out a head high Out- Heerſcha- rocks, theſe ſhal be the Heerſcharen, which are very foule, and ren. lie of from the N. point of the channell, a good wayes E. S. E. into ſea, al which you muſt leave on the ſtarboard ſide, and run alongeſt by them unto the Channell.

When as you come out of the ſea, you muſt take very good heed, that you fall not with the land to the Northwards of the channel, that you do not get into the forefaid Heerſcharen. When you come before the channel, you ſhal ſee 2 Sounds or goings in, the ſouthermoſt ſemeth to be the broadeſt, & fairеſt, but northermoſt is far the beſt, & lieth in N. N. W.

On the n. ſide of the channel lieth a great round hil, by al which marks this channel is very good to be known, when as you are right before the norther channel, & do ſee open into it, then ſaile it n. n. w. ; being come in about a ſhot of a calt peece, you ſhal ſee on the larboard ſide 2 litle low Ilands, ankor within them in 17 or 18 fathom, there you muſt hire a Pilot to bring you up, either to Southercoppen, or Northercoppen, where you deſire to be, it is Pilots water. It is from thence to Southercoppen, about 10 leagues, but to Northercoppen 18 league. S. In the comming in of the Sound is good ankorground in 10 fathom. Within in the Sound it is broad and wide, and al over good anckoring in 18 and 20 fathom.

Talder- found. About an Engliſh mile within the Sound you leave (in ſailing up) the Talderfound on the larboardſide; there is no more then 6 or 7 foot water, from thence you edge up n. and alſo n. n. e. a half league, then again weſt and by South about 2 leagues, afterwards weſt northwreſt a league unto Karholm, which is a Gentlemans houſe with a mill.

From Karholm to Stickbrongh is further weſt about two leagues, that is a caſtle upon a litle Iland, you muſt go about to the ſouthwards of it through a bridge.

Stickborg. From Stickbrough ſaile up alongſt the Sound, & leave moſt of al the rocks (which you ſee) on the larboardſide, except one of two a litle above Stickbrough, leave them on the ſtarboard ſide. About 2 leagues paſt Stickbrough ſtandeth a Gentlemans houſe called Meen, there is the place where men do lade, a half league from Southercopping.

For to ſaile from without the Northercopping, you muſt brawyck. run in by the Swartboden up weſtwards unto Schenes and Iraburch, & alongſt unto the Brawyk the found of Northcopping, or elſe you muſt come in at the Barſound through within the rocks into the Barwyke unto Northercopping, but it is not to be done without a Pilot for them that are not there very well acquainted, for it is Pilots water.

From the N. end of Oeland to the channel Nycopping by Hevering. the Hevering, the courſe is due N. about 12 leagues, but if you run cloſe alongſt by the end of Oeland, you ſhal fall with the land a litle to the W. wards of the Hevering. The Hevering is a great reddiſh bare rok, whereupon ſtand 3 or 4 Fithers beacons, heretofore there was wont to ſtand upon it a barrel upon a maſt, which men might ſee far of at ſea, but it is taken of in the laſt warres between the Kings of Sweden and Denmarck, now there ſtandeth nothing upon it but ſome Warders.

Two great leagues to the w. wards of the Hevering, to wit, Swartbo- W. S. W. from it, lie the foreſaid rocks called the Swartboden, den. which are great rocks, and are ſometimes miſtaken for the Hevering. you may ſaile in alſo by theſe Swartboden, and run throug within Oxelen & the other rocks, & come by the point of the Hommelwyke into the right ſound of Nycoppen.

When you come before the channell of the Hevering, you can at firſt hardly ſee a channell, or any opening, but bring the great rock the Hevering n. w. from you, and ſaile ſo right in, and run in cloſe alongſt to the northwards of it. In the laſing in you ſhall ſee two channels, the northermoſt is within full of dangers, ſo that you can not go through there. The right channel by the Hevering is ſo narrow, that you can hardly turne to and again there.

From the Hevering you muſt ſaile in firſt n. w. a league and a half, or 2 leagues, unto a great rock, leave it on the ſtarboard ſide. and ſaile about by it, and goe in alonhſt northweſt and by north. A little within the forefaid great rock, thwart off the point of the Hommelwyke, you ſhall finde alſo a great rock on Hommel- the ſtarboardſide, you may runabout to the weſtwards of it wycke. untill you come within the other rocks and litle Ilands, and ankor there in three fathom ſoft ground: but if you wil ankor there, then you muſt ſhun ſomewhat the the weſt end of the great Holm, becauſe of a funcken rock that lieth even without the point of the rock. From that forefaid road unto Haffellholm the courſe is yet in alongſt N. W. and North; but with ſhips of great draught you muſt ancker before the channell of Haffell-holm. From the Hevering to the Haffell-holm it is in all about 3 or 4 leagues.

From Haffel-holm alongſt upwards through the ſtonereach, Haffel- if it is not deeper then 9 foote, you muſt alſo (if you will ſaile up holm. there) firſt let the rockes, or funcken rockes with beakons with your boat, or elſe you ſhould ſometimes ſaile upon ſome of the rockes in 7 foot depth. The narroweſt of the ſtonereach Stonereach is thwart of an Iland which you muſt leave on the ſtaaboard ſide, off from which lieth a funcken rock in the narrow, you muſt goe cloſe alongſt by the funcken rock, for to the weſtwards off it is very ſhould water. Being paſt this ſtony ground, you ſhall get oaſſe ground, where it is not deeper then five foote, being come over that by the town Nycopping, it is again eight foot Nicopping deep, but ſtony ground. The ſhips he without the towne thwart of the beakons over againſt the Caſtle, which lieth on the weſt ſide of the river.

From Haffell-holm to the town Nycopping it is about a league firſt up N. and by W., and afterwards weſt. For one that is acquainted, it is not well to ſaſe up, it is alſo Pilots water, ſo ſoone as you come within the channell, you can get a Pilot to bring you, where you deſire to be.

From Nicopping you may ſaile alongſt through the roks to the N. wards of Haffell-holm unto Troſa and Telgen.

Landſoort (which is the w. point of the Liet of Stockholm) Landſoort lieth from the Hevering E. N. E. diſtant 7 or 8 leagues.

About halfe waies betwixt both lieth a great high rock very good to be knowne, a good waies without the land alone called Hartfoe. Hartfoe, & litle league to the w. wards of Landſoort lie alſo ſo- Heirhaven me foule out rocks, called the Heyrhamer. When as you ſail from the Hevering on e. n. e., then you run alonſt a litle without the Hartfoe, leaving it on the larboardſide. With that courſe, you can not alſo ſaile to neere the Heirhamer, and then you leave it lying alſo on the larbord ſide towards the land.

The land to the w. wards of Landſoort lieth w., or w. and by S., with divers great rockes and hy verr where you may ſaile in to. About a league to the weſtwards of it lieth a haven within a low rock in betwixt 2 other low rocks, there you muſt make you faſt with cables on both ſheares, and with an anckor in the Sound. Before the havens mouth lieth a high round rok, which ſtutteth the havens mouth.

A litle to the weſtwards of Hartfoe goeth in a haven or Deep, where you may run through with Barkes within Elſnap unto Stockholm.

A little to the weſtwards of that Deep lieth the Sound off Telgen lying in northweſt, allmoſt unto the great Lack de Meller, upon the end of that Sound lieth Telgen, but at the mouth of the Sound lieth the little Towne Torſa.

About an Engliſh mile ſouthweſt from the point off Landſoort, lie two rockes even with the Water, and within theſe rockes cloſe by Landſoort lieth alſo a funcken rock. He that commeth from the S. wardes, being bound to Stockholm, and taſteth with the land to the weſtwards of the point of Landſoort, muſt take heed of them, you may ſaile within theſe two rockes (lying even with the water) to wit, betwixt them and the foreſaid funcken rock, and alſo (as the Pilots ſay, you may ſaile through within the funcken rock, that is, betwixt the funcken rock and the maine land.

Landſoort and N point of Oeland lie S. S. W. and N. N. E. diſtant three and twenty or foure and twenty leagues. If you faile on northnortheaſt from the North end of Oeland, you ſhall fall with the land right with Landſoort or a little to the eaſtwards of it. It is better to fall with the land ſomewhat to the weſtwards of it, then to the eaſtwards of it, to the weſt wards the land is better to knowne then the rockes to the eaſt wards of it. Therefore when as you wil faile from the North end of Oeland to Stockholm, eſpecially in dark wether, goe on ſomewhat more northerly then northnortheaſt, or N. and by E., and then you ſhall runne ſight of the foreſaid rock Hartfoe, which is good to beknowne.

The Liet of Stockholme goeth in N. E. by the point off Landſoort. About a league eaſt from the point ly ſome black rocks, ſome above and ſome under water, called the Karwaſen. Betwixt them and the point, about once ſo neare the Karwaſen, as the point, lieth an other black rok, not great, called the yong Karwaſen, betwixt that rock and the point of Landſoort, men doe ſaile into the channell of Stockholm. Cloſe to the point lieth alſo a little Iland which you muſt leave on the larboard ſide,

Wigſtone, ſide, and run alongſt to the eaſt wardes of it, a league northeaſt from the point lieth the Wigſtone, lying ſoutheaſt or E. S. E. thwart of from the ſhore. This a ſomwhat a long rock with 3 hommocks, the two weſtermoſt are the greateſt, and ſhew like a ſaddle, the eaſtermoſt hommock is the ſmalleſt, upon it ſtandeth a little walled cape, you muſt ſaile alongſt to the eaſt wards of it, and leave the rock on the larboard ſide. You may well ſail alſo about to the weſtwards of this Wigſtone, it is cleane round about, but on the weſtſide it is narroweſt, betwixt it and the land lieth alſo a rock, with a litle rock off from it, which you muſt avoid.

A league N. E. from the Wigſtone lieth the Middleſtone, Middleſto- which is a great high rock with a great cliff or ſaddle with an- ne. other great rock a litle to the weſtwards of it: you can not ſaile through betwixt them, they are ſaſt one to the other with rockes. In ſailing up men leave this Middleſtone on the ſtarboard ſide, and run about to the weſtwards of it.

From by eaſt the Wigſtone to the Middleſtone, to wit, alongſt to the weſtwards of it, the courſe is northnortheaſt. A- Gonberg- from the Karwaſen lieth another rock, called the Gombergh- houſe. ſtone, and to the eaſtwards off it another, called Schaeropen. When you ſaile from the Wigſtone to the Middleſtone, you leave them both on the ſtarboard ſide.

Thwart of the Middleſtone, on the Weſtland lieth the haven Ramas- of Ramskloof, there you may anckor within the rocks. The kloof. Middleſtone lieth about a half league ſouthweſt from the eaſt point of the Liet, to wit, from the eaſt point of the main land, Danske- or the Swedeſchares, betwixt them both goeth in a chanuel, channel. called the Danske channel. For to ſaile in there you muſt avoid the foreſaid eaſt point a good wayes of (whereupon ſtandeth a mill) and run in by the Middleſtone, or from that point runneth of a great ledge of rocks a good waies to ſeawards, towards the Middleſtone. From by weſt the Middleſtone to Elſnap, the courſe is N. E. 3 leagues.

When you are a litle paſt the Middleſtone, you come in be- twixt the 2 lands, & a litle within the eaſt point you ſhal meet Redkow. with a rok in the fareway, called the Red-cow. You may ſaile about it on both ſides, but men leave it commonly on the ſtarboardſide, within that rok, that is on the n. ſide you may anker.

Elſnap. Elſnap is haven behinde 2 litle Ilands, where the Kingſhips of ware do commonly lie to tarry for a winde, when they are bound to ſea, there it is very good lying, when with contrary windes you can neither get up nor down, you can come in and out there both from the n. wards and from the S. wards very conveniently. Comming from the ſouthwards, you can ſee over the ſouthermoſt litle Iland, the maſts of the ſhips that lye behind it. For to ſaile in there behind it, run in about by the S. point of the Iland Elſnap behind it, and then you leave a litle black rock on the ſouthſide of the havens mouth, lying on the larboardſide. Betwixt the 2 litle Ilands of Elſnap runneth alſo a channell through where you may go through with Huyes and ſmal ſhips. From thwart of Elſnap, the courſe is inwards n. n. e. Redholm. about 2 leagues, to the Red-holm, that is a great Red round rock grown full trees, to the weſtwardes of it lieth another ſmaller bare rock, the fareway is there in through betwixt them, and about a muſketſhot broad, In this narrow it is al over good anckor ground. From the n. end of the Redholm lieth of a great row of rockes unto the eaſt ſhore of the Liet, where you muſt ſaile through. When as you ſaile through betwixt the Redholm and the foreſaid bare rock to the eaſtwards of it, go then on yet about an Engliſh mile further n. n. e. untill you come thwart of the fourth channell to tel of from the Redholm, which lieth through the foreſaid row of rockes to the northwards of Red-holm, that is called S. Johns Channel, it lieth through about n. n. w. or ſomewhat more northerly, it is a ſhort S. Johns Inlet, run through there. Being through S. John channel, goe channell. again in n. n. e. about an Engliſh mile to the Red-holm, which is a long rock upon it ſtand 3 barrels upon maſts, this you muſt Redholm. leave on the larboardſide, & run alodgſt to the eaſtwards of it. From the N. point of that Redholme runneth of a litle riffe or ſhould, which you muſt avoid. From the Redholm unto the great Da- great Daler, the courſe is n. w. and by n., that is a haven on the lar. weſtſide of the Liet, there lieth a Church-yard within on the land, where the ſlain Poles people in the laſt Poliſh wars lie buried. Thwart of that Church yard is a ſandbay, there is good anckor ground, like as is all over in that foreſaid haven. At the N. point of the haven the great Daler lieth a funcken rock cloſe by the land, called the Saltſack, upon which is no more then Saltſack 9 foot water. From the great Daler, the courſe is alongſt N. E. Little Da- a half league unto the litle Daler, which is a high ſteep rock, ler. the higheſt that you find amongſt all the rocks in the Liet, run alongſt to the weſtwards of it, and leave it on the ſtarboard ſide. Over againſt it on the W. ſide lieth another rock, which is called alſo the Daler, to the weſtwards of it, to wit, betwixt that rock and the main land, is alſo an opening, where you may ſail through. A litle within that foreſaid rock on the weſt land goeth in the Hardſtick which is a Sound that lieth in firſt W., Hartſticks and weſt and by north, a goeth wayes in, and then N. W. and cometh into the Liet to the northwards of Waxholm, by Kings haven Majeſty hath cauſed to ſinck ſome ſhipt in the mouth of the Sound, ſo that men can not goe through here with great ſhips, but onely with litle barcks. From the litle Daler, the Steendeurs courſe is N. N. W. about a halfe league to Steendeur, a great Iland, which you muſt leave on the ſtarboard ſide, and run cloſe alongſt by it, and ſo you ſhall leave a round rock to the ſouthwards over againſt it on the larboard ſide, and faile through betwixt them: this channell lieth through N. W. At the weſt end of the great Iland Steendeur lieth a litle black rock, you muſt run about by it again to the eaſt wards.

From Steendeur to Kow-haven, the courſe is eaſtnortheaſt Kowhaven two leagues, that is a roch lying in the broad Sound, leave it on the ſtarboard ſide, and ſail to the weſtwards of it alongſt by the weſt land unto Berck haven. Betwixt both about half waies lieth a haven, called the Croſſe-haven, there it is good lying for weſt and northweſt wind.

Berck-haven lieth from Cow-haven northeaſt and by north Berkhaven diſtant about two leagues: this is a haven betwixt two Ilands where is good anckoring for all wind, as well for them which come from Stockholm, and deſire to ſaile to the Northbodem, as alſo for them that will ſaile of towards Landſoort, there is (like as at moſt places betwixt the rocks and Ilands) good clay ground. When you come from Kowhaven, and are bound to Stockholm, you muſt leave theſe two Ilands of Berck haven on the ſtarboard ſide, and run in about betwixt them and the point of the maine land. From the narrow betwixt Berckhaven and the foreſaid point to Duer-haven, the courſe is northweſt Berkha- about a halfe league. On the S. W. ſide of that farcway thwart ven. of the point over againſt Duer-haven, lye two ſunken rocks on each ſide of the point one, the one on the northweſt ſide, and the other on the ſouteaſt ſide, commonly there ſtandeth upon each of them a litle tree for a beakon.

From the point of Duer-haven unto the Dray-bome, the courſe is ſouthweſt and by weſt ſomewhat weſterly about a half league, it is called alſo the Duer-haven, of from the point within the Ilands until you come before the buy e, alongſt there, and alſo within the Ilands, it is good lying every where.

The litle Ilands which lye in the channell of the Draybo- Draybome me, you muſt leave them on the ſtarboard ſide of you.

From the Draybome to the Windſtream, the courſe is firſt VVindſtream. n., and n. and by w. until about half ways, there you ſhall find a litle Iland with a litle tree, leave that on the larboard ſide, & goe from thence in n. n. w. to the Windſtream. In the Windſtream is a good anckoring by the ſhore, except in the end of the ſtream, there is no anckor greund. From the Draybome to the Windſtream it is about a league diſtance.

From the Windſtreame to the Seugh, the courſe is w. n. w. a The Seugh half league, that is a chiadle or ſtonebank even with the water, run alongſt to the n. wards of it, & leave it on the larboard.

From the Seugh to Scheggen, the courſe is w. and by n. alea- Scheggen gue, run alongſt there by the S. ſhore. When you come againſt Scheggen, you ſhall ſee upon the point of the S. ſhore a litle round tree, over againſt that litle tree ſomewhat more norther ly then in the middle of the channell, lieth a funcken rock, for to avoid it you muſt run neare to the ſouth ſhoare. The reach of Scheggen lieth through w. and by ſ. about an Engliſh mile, it is narrow, but hath every wher anckor ground.

From the Scheggen, the courſe is w. ſ. w. an Engliſh mile to Steckſound, or w. to Kings deep, the litle Ilands on the ſtarboard ſide, as you faile to Steckſound, are cleane round about, ſo that you may goe on all ſides about by them.

Comming cloſe to Steckſound you ſhall finde a funcken rok a litle by S. the fareway. The Steckſound lyeth through S. S. W. it is a ſhort Inlet about a cables length long.

From Steckſound unto Waxholm it is ſ. w. welterly above an Waxholm. Engliſh mile. Upon Waxholm ſtandet the Kingscaſſle, there al the ſhips are vifited wheter they go up or down, the channell there by it, is paſed to ſo near, that they can ſhut it with a boam.

From Waxholm to the Weſter reach, the courſe is weſt ſ. w. VVeſter- and through the Weſter reach ſouthweſt. From thence alongſt reach, weſt to Eeldam, that is a very narrow channell a litle more then a ſhips length broad.

From Eeldam, the courſe is weſt to Mouſeholm, which is Eeldam. about a league from Waxholm, men leave the high rough Mouſe-holm on the ſtarboard ſide, and run alongſt by it to the ſouthwards.

From the Mouse holm to Kings haven it is a league West, and West and by north al alongst by the southland.

From Kingshaven unto the town Stockholme, the course is northwest, and northwest and by west also a league distance alongst by the shoare. When you come before the towne, you may anckor where you please.

He that falleth to leewards or by any other accident can not come by Landfoort into the Liet of Stockholm, he may fail in more to the northwards through divers channels. Amongst others there is one where men may faile into, and come by the great Daler into the Liet: there goeth another in by the Swedes-sand, through it men come by Berckhaven into the Liet. The knowledge of this channell is a very high rock, with another that is not so high, thereby to the southwards off it, betwixt these two rocks goeth in this channell, it is very narrow in the comming in, not above two shippes lengths broad. So soon as you come in within these rocks, you may edge up about by the lowest, which is the southermost, and anckor under it in very good anckorground.

From that road in the Swedes sands the sound goeth up first about northwest, and northwest, 5 leagues unto Bercker haven into the Liet of Stockholm. The very good channell as well for to faile in as out, but because it is not easie to know, comming in out the sea, it is seldom used.

The S. wards or the w wards of these two foresaid rocks, at the comming in of this channell, it is all low land. If you come from the southwards, and run alongst by that low land, so long untill that you begin to get the high land, you shall also run in sight off these two foresaid hommocks. About a league to leewards from them, lie three or four small rocks; for to faile in there you must leave them on the starboard side, and in sailing out on the larboard side.

Of the Depths and grounds about these coastes.

Betwixt the S ends of Oeland and Gotland in the fareway, it is uneven for to sound, sometimes men have 22, 23, and sometimes againe 28, 29, and thirtie fathome, all black mingled ground, sometimes stones so great as pease, of coull our like black earth.

When Houbrough is N N.E. 7 leagues from you, there it is fifteen fathom deep, stonie ground, from thence on north 8. two leagues, there it is 20 fathom deep, foule stonie ground. Neare about these places, so far from land that you can not see Gotland, are bancks, where it is not deeper then 12 fathome. The like uneven grounds are also thwarte of the South ende of Oeland, as hath beene side in the Somer, but betwixte them both is deeper water. If you come in the fareway from Rye to Bronthollom betwixt the South endes of Gotland and Oeland, and must lie by with contrarie windes when you are in the 10 or 12 fathome, and then saile towards Oeland, you shall get deeper water.

If you lie by betwixt Oeland and Reefcoll, and that Reefcoll come to bee S. S. E. and S. and by east from you, so farre without the land, that you can not see it, then you shall get also the like uneven grounde of temne and twelve fathome, rede grosse stonie sand, and also blackish grosse sande stone ground. If you be neareth to Oeland, you shall get, in 10 or 12 fathome pittes in the fallowe, so that it seemeth, that these grounds of Oeland doe run over unto, or neare Reefcoll. The like grounds an unevensse doe seeme to lye over the sea also from the S. ende of Gotland towardes Rose-head: for when the South ende of Gotland commeth to be about n. from you although it be fourteen or fixteen leagues from you, you shall finde depth of fixteen and twentie fathom soft grounde, like as of from Oeland, but if Gotland be more easterly or westerly from you, you shall have deeper water.

When you are about a league by west the southwest point of Gotland, so that it be Southeast, or eastsoutheast from you about a league, then the Carels lie about north from you, which you may even see in cleare weather, therein coules it is shoulde water a good wayes of from the shoare. When the west pointe or steepe pointe is about n. from you a litle to the Eastwards or to the w. wards of it, there is 10, 12, 14, 16, and 18 fathom deepe, a greate wayes from the land: but when that point commeth to be N. E., eastnortheast, or east from you, there it is above the fortie fathome deepe.

Betwixt the S. west point of Gotland, & the north point off Oeland it is also verie deepe, so that there you can not cast ground with 40 fathome.

When you are N.W. and N W. and by North about 2 leagues from Houbrough, there you have great redde stone sand, and black stones in it, so great as beanes.

Betwixt Gotland and the Swedes shares in the fareway it is 32, 36, and 38 fathom deepe, and close by Gotland five and twentie fathom.

When the tower of Houbrough is w.n.w from you, so farre as you may see it from the poope, there it is 30 and 31 fathom deepe, but being northnorthwest from you it is shoulder, 25 and 26 fathom.

Betwixt Houbrough and Eastergore lieth a banck of 24 fathom, grosse redde sand, so farre without the Iland, that you can not see the land out the top. To the E.wards of it lieth another banck or 14 fathom gray and white sand, when you are over it, you shal have no ground in fortie fathom.

Two leagues without the land, by west Eastergore, there it is about 31 fathom soft ground.

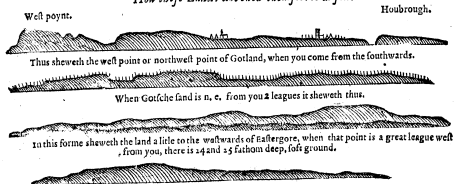
He that faileth from Bronthollom alongst by Oeland towaads Eastergore, let him not spare his lead, but found often for these aforesaid bancks and groundes, thereby you may well make some reckoning.

If you should make reckoning to come by night with Gotland on the se. side, and have no good sight, then come no nearer the land (about the n. end or S end, and also by Eastergore) then in 20 or 24 fathom, and so you can take no hurte by night. By day you may come neare enough to it at many places, in 7, 8 or temne fathom.

How these lands doe lye one from the other, and from other lands.

From Houbrough to Eastergor northeast	12 or 13 leagues
From Eastergore to Faro sound north and by east	7 leagues
From Farosound to Gotsche sand n.n.e. and n. and by e.	6 or 7 leagues
From Houbrough to the Karel-northnorthwest	7 leagues
From the Karel to Wisbuy N.N.E.	22 leagues
From the karels to Gotsche sand northeast	12 leagues
From Houbrough to the north ende of Oeland n. w.	13 leagues
From the karels to the Swedes lockyrow west and by n.	21 leagues
From the karels to the channell of Stockholme north	40 leagues
From the karels to Hoechschaer n. e.	30 or 31 leagues
From Gotsche sand to Roschichaer north and by east	half north and by east 33 or 34 leagues
From Gotsche sand to the south point off the Alands	37 leagues
From Gotsche sand to writer N. E.	7 leagues
From Gotsche sand to Dageroire east and by N.	31 or 32 leagues
From Gotsche sand to Derwinde southeast and by east	37 leagues
From Eastergore to Dageroe n. N. E. and by east	27 leagues
From Eastergore to Derwind east and by south	50 leagues
From Eastergore to Quinsbrough deepe south and by east	45 leagues
From Eastergore to Rolshead south and by west	47 leagues
From Houbrough to Honflorte e.n.e. and n. e. and by e.	40 leagues
From Houbrough to Lyfvorte e.and by n. somewhat easterly	37 leagues
From Houbrough to Derwinda east and by n.	40 leagues
From Houbrough to Dermemell southeast and by east	48 leagues
From Houbrough to Quinsbrough deep southsoutheast	34 leagues
From Houbrough to Rolshead south	89 leagues
From the north end of Gotland to Derwinda eastsoutheast	4 leagues
From Calmer to Scheggenes northnortheast	7 leagues
From Scheggenes to the Swedes loufer N. N.E.	8 leagues
From Swedes loufer to Idefound, the channel of Welterwyke, and by well, somewhat westerly	or Silbuy, N. 5 or 4 leagues
From the Swedes loufer to Northeroorden, the north end off Oeland east and by north	9 leagues
From Northeroorden to the channell off Welterwyke n. w.	26 leagues
From Northeroorden to the Barfound, n. and by west	23 leagues
From Northeroorden to Harsfoe n. and by east,	23 or 24 leagues
From Northeroorden to Landfoort N.N.E.	7 or 8 leagues
From Hevering to Landfoort eastnortheast.	

How these Lands doe shew themselves at sea.



Thus sheweth the west point or northwest point of Gotland, when you come from the southwards.

When Gotsche sand is n. e. from you 2 leagues it sheweth thus.

In this forme sheweth the land a litle to the westwards of Eastergore, when that point is a great league west, from you, there is 24 and 25 fathom deep, soft ground.

Eastergore being a leag. w. from you, sheweth thus, there it is 25 fathom deepe.

FINIS: